[redacted]

[redacted]

[redacted]

No. 575

COLORADO WYOMING GAS COMPANY,
PETITIONER,

vs.

FEDERAL POWER COMMISSION, COLORADO INTERSTATE GAS COMPANY, CITY & COUNTY OF DENVER, COLORADO, [redacted] AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE TENTH CIRCUIT

[redacted]

[redacted]

[redacted]

Testimony of Commission's WITNESS SMITH (Continued).

"'Costs' rather than 'assets' is the significant term in present day accounting. Costs are incurred and are charged to cost accounts. From time to time the pool of costs is analyzed for the sake of determining the charges to be applied to current revenues on the one hand and prospective revenues on the other. After absorption of the expired costs the amount to be deferred emerges as an 'asset' balance.

"This means that the income statement is much more important in accounting than the balance sheet because the latter is only incidental to the truly essential accounting processes which are related and expressed in the income statement. The balance sheet comes into existence mainly because of the necessity of periodic reckoning, that is matching of costs against the revenues of a particular period, and the attendant deferring and accruing of costs.

"This increasing recognition of the greater importance of the income statement has been inevitable as generally better understanding of accounting principles has gradually evolved. Qualified accountants have recognized the importance of income accounting for many years and it is believed that laymen now have attained a much better understanding of this real emphasis of accounting.

"Because of the fact that matching costs against revenues is the central focus of accounting it is more important that all expenses be included in the income statement than it is for every conceivable item to be charged to plant. A company which follows the practice of ascertaining all costs which under some theory may be called plant costs, while leaving out of consideration the setting of accounting transactions when they occurred and ignoring the expense side of the problem, does not follow good accounting. Its accounts are biased, not wholly truthful, and to say the least the company is guilty of false emphasis. It is more logical and much better accounting to follow the principle of making sure that all the expenses are accounted for as such and of considering the residual costs as plant rather than vice versa.

"Consistent adherence to a sound scheme of account-

ing can result in no duplication of costs. Once a cost is matched against revenue it disappears from the books, so to speak, because its expiration is recorded as an accomplished fact, that is as an expense. Under proper accounting this expense or expired cost cannot at some future date be reinstated as a legitimate cost and again matched against revenue as a legitimate expense. This likewise prohibits such a cost from being restated to the plant account because that treatment presumes that the cost would be subject to depreciation which would mean that the cost would ultimately be matched in segments against revenues of a succession of periods as a result of the annual depreciation charges. This too would be a clear duplication of costs.

"Departures from coordinated and consistently applied accounting concepts in making original cost studies often yield results which are inaccurate. An original cost inventory and valuation which ignores the fact that certain items were charged to expense on the company's books is not valid. One typical example will show how false a result can be obtained by improper methods. A pole which is rotten at the ground line is saved for the time being by the installation of a stub. The cost of the pole stub is a proper maintenance expense charge and is generally so considered by accountants. It would therefore not be a proper charge to plant. However, a valuation man in taking an inventory sees the pole stub and may assign a value thereto and include it in his original cost estimate. Obviously his method would result in duplication and falsification in the company's accounts. This is but one typical example of numerous similar possible misapplications of the original cost principle. Another way of illustrating this same possibility of error is to visualize what would happen if two men were sent out independently of each other, one to compute all the expenses which by any stretch of the imagination could be called expenses and the other to compute plant costs with instructions to include every conceivable item which could be termed plant cost. It is apparent that their results for the same company would show much overlapping and duplication. This would come about because each would place emphasis on only one side of the transaction. Each em-

phasis would be a false emphasis and it is probable that each result would be incorrect.

"May I repeat and re-emphasize at this point that an original cost study to be valid must conform to consistent accounting principles and if proper results are to be obtained the transactions entering into such a study must be viewed in the light of all their atmosphere and settings both individually and as an interrelated whole.

"Reproduction cost new studies which include a value for items which were charged to maintenance on the company's books also violate one of the principles of logic that dominate the science of accounting, that is, that the same expenditure may not be considered both plant and maintenance. It may be either capital or expense but it cannot be switched from one to the other so as to best fit the particular occasion or purpose.

"Another particularly unsound practice which violates the accounting principle that costs which have been accounted for as expired may not now be reinstated as capital, is for a utility company to claim in computing its rate base observed depreciation which is less than the accrued depreciation computed on its books as a result of annual accruals to expense.

"So far as accounting is concerned this would have the same effect as adding to the plant account items which had been charged to expense during prior years. In either case it would constitute including in the rate base charges which had been made to expense in previous years, which had been already matched against revenue and had therefore expired in view of the company's accounting practices as exercised under the discretion of management."

(Vol. 58, pp. 8269-8294.)

* * * * * *

Do you know as a matter of fact that this so-called forgiven account was taken over and paid by the Public Service Compny of Colorado?

A. I had some information on that which I found by reviewing my working papers. I will show you exactly what

I had on that. Of course, it wasn't particularly concerned with what happened to the Public Service Company of Colorado—

Q. I understand that but I just asked you whether you knew that to be a fact.

A. The only information I have on that particular angle of the transaction; that is, anything that took place outside of the books of the Colorado-Wyoming Gas Company, was what I got out of the Federal Trade Commission's reports, Volume 66, and it states in there on Page 953 at one place:

> "On September 1, 1931 Cities Service Company transferred the stock of Colorado-Wyoming Gas Company to Public Service Company of Colorado, a subsidiary of Cities Service Power & Light Company, which in turn is a subsidiary of Cities Service Company, for $2,675,000. This price reflected an intercompany profit to Cities Service Company from the transaction of $1,027,429.57."

Q. Now, if you will go back to my question. Do you or do you not know whether this particular account which you say was forgiven was in fact paid by Public Service Company of Colorado?

A. That is what I am getting around to.

Q. All right.

A. It is my interpretation this $2,675,000, assuming the Federal Trade Commission data are accurate—

Q. You are just giving the data you have?

A. From the Federal Trade Commission's reports.

My interpretation is that the $2,675,000 which Public Service Company of Colorado paid for the stock of Colorado-Wyoming Gas Company in effect covered the payment of this debt to Henry L. Doherty & Company or the Cities Service Company, whichever one had put the money. Apparently Cities Service Company put the money up to Henry L. Doherty & Company, and Henry L. Doherty & Company put it up to Colorado-Wyoming Gas Company.

Q. And the Public Service Company in the acquisition and purchase of the stock as you have it here took over and paid this account referred to in Exhibit No. 137, that is your understanding of it?

A. I could make that interpretation of it, I think. It was covered in the $2,675,000 they put up.

Q. That is your understanding of what took place, just as a factual matter?

A. Yes, based upon the Federal Trade Commission data. Of course, that doesn't have any effect upon the accounting on the books of the Colorado-Wyoming Gas Company.

Q. I understand that. I am just asking you about the transaction, as to what was involved at the time of this so-called forgiveness of debt.

A. That is what I had on it and I find I extracted those notes as one of the first things of the audit in June 1939. That is one of the first notes I made.

Mr. Lange: Was there anything else with reference to that written statement, any further explanation that you have to make there concerning Exhibit No. 137?

The Witness: You might turn to Page 3, the next to the last paragraph on that page, or the last paragraph in that particular section.

I think that statement was challenged in my cross examination when I first offered the exhibit. I didn't have the means at that time with me of showing that my statement was true. I make this statement: "Inasmuch as the capitalization of the Colorado-Wyoming Gas Company has never included any securities other than the no par value stock referred to above—" meaning $1,501,000—"it may be said the corporation financed its construction program principally through cash advances from Henry L. Doherty & Company."

Of course at that point I am referring back to this debt that was forgiven and to the advances which I referred to earlier in my testimony today.

Then I make this statement: "The capitalization of $360,924.33 of earned surplus is evidence of investment in fixed assets of funds obtained from earnings."

I take it that is more or less self-evident now in view of the fact I have shown the total advances from Henry L. Doherty & Company were somewhat less than the amount

which eventually went into stock, and in addition the Colorado-Wyoming Gas Company had repaid more than a half a million dollars of those advances. Of course, it is my position, which I think is absolutely self-evident, that the stock dividend of $1,500,000 consisted of the donated surplus of $1,139,075.67 resulting from the forgiveness of the debt and that the rest of it, the remainder of it, must have consisted of earned surplus which the company had earned prior to December 1931 in the amount of $360,924.33.

Then I make the further statement in that paragraph:

"It also would appear that a considerable portion of the funds resulting from the accumulation of a depreciation reserve has been invested in fixed assets."

That statement was challenged and not having a balance sheet before me at the time I was not able to show exactly why that statement is true.

Taking the company's balance sheet in their Exhibit No. 242, I think I can demonstrate in just a few words why that last sentence is absolutely true and correct. This balance sheet, the last two pages in Exhibit 242, carried down to December 31, 1940, shows—

Mr. Lange: From what exhibit are you reading?

The Witness: Exhibit No. 242, the company's exhibit, Mr. Davis' latest balance sheet.

It shows a total ultimate plant investment per books of approximately $1,900,000. For our purposes here at this point we can assume that that statement is the correct amount for plant, even though our Exhibit 199 shows and identifies the writeups in that—

By Mr. McCreery:

Q. What do you mean by writeups?

A. For example, your interest on excess capacity is a write-up, pure and simple.

Q. You mean that is what you call it?

A. No, sir.

Q. That is what you are defining it as now?

A. It is a writeup—

Q. I just wanted to know what you were referring to.

A. —and the inter-company fee of some $82,000 to Henry L. Doherty & Company, although that did represent an expenditure on the part of Colorado-Wyoming Gas Company, we have treated that as a writeup effected through the medium of an affiliated company. Those are the two principal items. Any other items would be relatively small.

Q. You just designated and called it that name for the purpose of your exhibit, called it a writeup?

A. If I didn't think they were writeups, I wouldn't call them writeups.

Q. All right.

A. Now if you will turn to the liability side we find that the capital stock account is $1,501,000 and it is conceded, that is, the facts show that the stockholders either put that money into the company through actual cash advances indirectly or by dividends which could have been paid to the stockholders from the earned surplus which was capitalized, so it is accurate to say that the stockholders do have $1,501,000 in the business in capital stock account; however, turning back to the asset side we find an item for investment in associated companies of which the record in this case will show that approximately $98,000 represents a loan to the stockholder, the Public Service Company of Colorado.

Therefore, roughly speaking—

Q. Upon which interest is annually paid by Colorado Public Service Company of Colorado?

A. Yes, I merely—I am getting down to the fact that the stockholders have invested in the net assets of this company $1,400,000, although the plant account shows $1,900,000.

Q. That is your construction of it?

A. That is absolutely the fact.

Q. I mean, that is your construction?

A. It is the construction of any accountant that knows how to read a balance sheet.

Q. Is that so? It is your conclusion?

A. It is a fact. Here it is in black and white. I don't think it is a conclusion. I don't think an analyst who takes

a balance sheet and reads it properly and correctly could draw a conclusion it was otherwise.

It is $500,000 spent on plant account, and referring back to the liability side of the balance sheet there is no place that $500,000 could have come from except through the investment of the funds that were obtained in building up a depreciation reserve. I think that that logically follows if one understands how the depreciation reserve operates.

The company had on its books $512,000 for reserve depreciation of gas plant at December 31, 1940. That indicates that the company had collected in its revenue from its customers $512,000 to cover an item that it hadn't taken in the expense accounts each year for depreciation and the revenue which came in covering depreciation was cash that was not required to meet current operating or maintenance expenses. It was sort of a reimbursement to the company for a part of its plant.

Now, if it had not expended that depreciation reserve—the funds represented by the depreciation reserve on its plant account or some other assets, of course it would be represented in cash. It couldn't have been paid out in dividends for the reason that the surplus after the deduction of the depreciation as an expense wasn't available to pay out for dividends and there would have been a tendency to have accumulated a cash balance, but instead the plant account has been financed and has had its growth partly from the reinvestment of funds which were obtained from the customers representing the accrual to depreciation for depreciation reserve. I think that concludes my answer to that question.

Redirect Examination.

By Mr. Lange:

Q. Just one question I had to ask you and then I am through on that: I notice that your reserves for depreciation are set up under the heading "Reserves." In your opinion as an accountant, is it proper to treat reserve for depreciation as a liability on the balance sheet?

A. No, it is not. The reserve for depreciation being on that side of the balance sheet is one of the reasons why

the heading for that side of the balance sheet in this system of accounts is called liabilities and other credits. The reserve for depreciation is one of the other credits that is put on that side of the balance sheet for convenience.

I think that anyone who perceives that the reserve for depreciation as being a liability would indicate clearly that he had a misconception of one of the fundamentals of accounting and that he did not know how to read a balance sheet. The reserve for depreciation measures the decline in value of the plant assets because of the factors that are operating to cause depreciation such as wear and tear and any other factors that operate to eventually send that plant to the junk heap, and from the standpoint of accounting principle, the credit reflected in the reserve for depreciation might just as well be credited to the plant account itself. It is only for convenience of retirement accounting and depreciation accounting that the reserve for depreciation is carried in a separate credit account.

If you were relying entirely on accounting principles and not seeking the convenience, it would be just as accurate to credit the provision for depreciation directly to the plant account, and I have actually seen it done under some systems of accounting; that is, under some sets of books.

Mr. Lange: I believe that is all, Mr. Examiner.

Mr. McCreery: That is all.

Mr. Lange: Now we desire to offer that Exhibit 137 at this time, Mr. Examiner.

Mr. McCreery: I object to it as immaterial and irrelevant and also that portion of it which embodies certain correspondence as hearsay, the copy of a letter which purports to be a letter of May 1, 1940 addressed to Mr. Smith from New York, attorneys by the name of White & Case.

Mr. Lange: Representing H. L. Doherty.

Mr. McCreery: Attorneys for the estate of Henry L. Doherty. I object to that as hearsay testimony and I move to strike that.

The Trial Examiner: The objection will be overruled and Exhibit 137 will be received.

(Exhibit 137, Witness Smith, received in evidence.)

Mr. Lange: We also have Exhibit 205 that carried down the operations from September 1939 through September 1940. That has never been acted on.

Mr. McCreery: I will ask one question with respect to that. This Exhibit 205, Mr. Smith, does not present the book figures but it does present the adjustments undertaken to be made? It reflects the adjustments undertaken to be made by you and Mr. Vaught in your Exhibits 199 and 202, carried on to September 1940?

The Witness: No, that is not entirely correct.

Mr. McCreery: You state, then, what the facts are.

The Witness: I think on Page 1 of Exhibit 205 there is a note that tells the story in short. It is based on book figures but with one exception, and we have made a reclassification of the rate case expenses and things designated regulatory commission expenses on the books and taken those out of expenses in 1939 and 1940 and suspended them in a deferred debit account until they are disposed of by the Commission. Outside of that, Exhibit 205 reflects exactly the book figures.

Mr. McCreery: I just wanted the record to be clear.

Mr. Lange: We offer Exhibit 205 at this time, Mr. Examiner.

Mr. McCreery: No objection to the exhibit. Of course, there is no authority in this witness to make such suspensions of any of these accounts, regulatory accounts or any accounts.

The Trial Examiner: It will be received.

(Exhibit 205, Witness Smith, received in evidence.)

Mr. Lange: Now, Mr. Examiner, on January 30, 1941, Mr. Smith testified and his written statement was read into the record on matters pertaining to original cost exhibits and other accounting matters in this proceeding. At that time cross examination was deferred to some subsequent date and the reservation was made by each of coun-

sel for the companies to cross examine at a later date if they so desired.

The Trial Examiner: Oh, that is the exhibit that Mr. Spencer referred to as a thesis.

Mr. Lange: I think so.

The Witness: A treatise.

The Trial Examiner: Treatise.

Mr. Lange: We were just bringing it to the Examiner's attention with reference to Colorado-Wyoming. Of course Mr. Spencer or Mr. Dougherty may want to do their cross examining for Colorado Interstate Gas Company and Canadian River Gas Company at some subsequent time, but I was bringing it to the Examiner's attention at this time only with reference to Colorado-Wyoming Gas Company.

Mr. Spencer: Mr. Examiner, Canadian River Gas Company and Colorado Interstate Gas Company will have some cross examination on that particular exhibit at a later time in the proceeding, however.

Mr. Lange: Well, that's what I assumed.

Mr. McCreery: As far as that exhibit is concerned, Colorado-Wyoming Gas Company will now make a suggestion to the admission of it.

Because it is purely a self-serving declaration; it is this particular witness' ideas of what the accounting may be. They may be right and they may be wrong. It is quite similar to a lawyer getting on the stand and putting in his brief in evidence as to what he considers to be the fundamental principles of law involved, which would be equally incompetent.

As far as the Colorado-Wyoming Gas Company is concerned, we object to it as incompetent, irrelevant and immaterial, and in a sense highly prejudicial because it involves the witness' conclusions on matters that, if I understand this proceeding, is not up to him to decide but up to the Commission to decide.

Mr. Lange: The witness proceeded purely on an accounting basis and so stated in reply to my questions.

The Trial Examiner: Do you recall the number of that exhibit?

Mr. Lange: It has no exhibit number but I have the volume and pages on which it appears.

Mr. McCreery: My objection would be in the form of a motion to strike rather than an objection because it does not have an exhibit number.

The Trial Examiner: The Examiner will take your motion to strike under advisement.

Mr. McCreery: And that will be ruled upon subsequent to cross examination by the other companies.

(Vol. 86, pp. 12863-12875.)

* * * * *

Commission witness SMITH was further cross-examined on the subject of "Depreciation" in connection with his "Rate of Return" computation (Commission Ex. 202, St. B-7, p. 10) as follows:

"Q. Now, Mr. Smith, do you mean to say that this depreciation figure of $374,904.19 shown at page 10, Exhibit No. 202, and a similar item in Exhibit No. 204, page 2, in the amount of $393,663.25 are other than book items entered by you pursuant to a calculation of the service life assigned to the property in Mr. Copp's Exhibit No. 200?

"A. They represent the expired service value of the plant assets.

"Q. What do you mean by the expired service value?

"A. I mean that portion of the total service value of the assets in question which have been treated as an expense in earning the revenue which the company collected—earned and collected for the year 1939 and prior thereto.

"Q. They have no relation as far as you know to the actual physical condition of the properties at that date?

* * * * *

"*The Witness:* I assume that the thing you are talking about, when you say the actual physical condition, is an engineering concept and I therefore don't know.

* * * * *

"A. It is an accounting entry based upon an engineering estimate of the service life.

"Q. Of the total service life?

"A. That is correct. I as an accountant have converted that into terms of service value and have shown the service value which has expired and related it to revenues which have been earned by the company in the past on the one hand and by a process of arithmetic determined the service value of the plant which is applicable to the revenues to be received by the company in the future.

"Q. Your work has been wholly the work of an accountant?

"A. I believe that is correct.

"Q. You have taken a total service value and evenly apportioned it throughout the entire period of service life which the engineering department tells you that property may have, is that right?

"A. Generally speaking, that is true.

"Q. Isn't that in fact what you have done here and what you undertook to do except with respect to certain special items that were discussed in your previous testimony?

"A. That is right. I have applied straight line depreciation based upon the engineers' estimate of service lives.

"Q. He has given a service life of fifty years to the main line so you applied on the main line 2 per cent a year straight through?

"A. That is correct.

"Q. And similarly with the other classifications of property you have taken the service life again and divided it accordingly? On a 40-year life you applied it under your computation at 2½ per cent?

"A. That is correct.

"Q. It is simply a mathematical and accounting procedure that you have indulged in?

"A. That word 'simply,' I don't know what you mean by that. The procedure I have used—

"Q. I will leave the word 'simply' out. You have followed a mathematical and accounting procedure in setting up this depreciation reserve from year to year?

"A. Yes, you can even say I followed an accounting procedure because the mathematics follows the accounting.

"Q. That is right. It is just one of the tools. Why, then, on page 10 of Exhibit 202 did you subtract from the

average balance of gas plant in service as adjusted by Mr. Vaught the sum of $374,904.19 in the second line?

"A. Because the item on the second line, the average balance in the reserve for depreciation represents the expired service value of the plant.

"Q. So that your item on the third line beneath average investment in gas plant doesn't refer to the physical condition of that plant at all?

"A. I don't know. It refers to the money that the company has invested in it.

"Q. Under your computation of retirement pursuant to your straight line application of the service life figure given to you by the engineering department?

"A. That is correct.

"Q. But so far as you know, that figure for the year 1939 is not relevant to what the physical condition of that property is as of that date in terms of dollars?

"A. By 'relevant' do you mean equivalent?

"Q. Has it any relation at all? That is what I mean by relevant.

"A. Well, I think that the question of whether there is relevancy is more or less of an engineering question but I can make an answer to your question in this way. If I don't know the other factor that you are referring to, if I don't know what it is, of course, I don't know whether this figure here is relevant to it or not, or whether it is equivalent. This may be more or less or equal to whatever concept you have in mind. I don't know what you have in mind.

* * * * *

"Q. The per cent condition of a property at a given time is a physical fact, is it not?

"A. I don't know.

"Q. You don't know that?

"A. I don't have any conception of what is meant by per cent condition. It has been explained to me but it is absolutely meaningless. I have heard it talked about but I still don't have any idea as to what it is.

"Q. You have heard it talked about a great deal, haven't you?

"A. Yes, sir.

"Q. And you don't know what it means?

"A. The concept is very vague in my mind.

"Q. So evidently it wasn't in your mind at all in making these entries here?

"A. No. I reflected the expired service value as an accountant.

"Q. As an accountant?

"A. Yes, sir, based upon engineering data.

"Q. And the engineering data you went on was a statement of service years of service life to the total which you apportioned at the appropriate per cent per year and from year to year made that charge on this account, bringing it up to December 31, 1939, is that true?

"A. I believe that statement is correct.

"Q. So that when you refer to average investment, you refer to it in the light of what you just stated as the procedure you followed?

"A. That is true, and from another point of view as well. We must look at the other side of the transaction. You can't come to any proper understanding of accounting without looking at the balance sheet and income entries both."

(Vol. 68, pp. 9895-9901.)

* * * * *

They must be related. So in arriving at this expired service value referred to on Line 2, Page 10, Exhibit 202, I have also used the same value, the same amount of money—put it that way—that has been charged against the revenues of the company in computing the expenses to the company of doing business and securing those revenues. That makes it a logical, coordinated, coherent picture. You see I am consistent all the way through in what I have done, so when I come down to a return of over twelve per cent I have treated your depreciation reserve consistently in the asset aspect of it—entirely consistent with what I have done with that same computation and the same line of thought and same line of logical reasoning on the expense side of it. I assumed that if the company has—by this computation has shown that it recovered this expired service value in obtaining its revenues and has once recovered that expired service value, then it has recovered it just like any other—

Q. You are now going from the field of accounting into the field of law, it seems.

A. No, sir, I am very definitely in the field of accounting, Mr. McCreery.

Q. Let me suggest this to you: Is this figure here on Line 7 what you would consider the rate base of this company?

A. I have made no computation of the rate base, Mr. McCreery.

Q. Why did you make a computation of return? The only place a computation of return is material is on a rate base and this is a rate hearing.

A. One of the furthest things from my mind was to recommend this as a rate base. I feel as though that is somebody else's job. I am presenting facts.

Q. I understand that, but I asked you why you go further than present facts. You set up a figure and figure a return on that figure, but the figure that you set up you claim it is not a rate base. I don't think it is myself, but I want to know what you thought.

A. I didn't say it was a rate base. I said that I hadn't computed a rate base.

Q. You hadn't?

A. I had not submitted this was a rate base. I just said it was somebody else's job. They may decide it is a rate base, I don't know, but I am not setting it out as such as I am setting it out exactly for what it is.

Q. When you set up the total plant account and subtract from it the total depreciation account with some other smaller items and arrive at this figure upon which you set up a return and the income of course doesn't reflect all of the deductions, you are not undertaking at all to set up an indication of what the rate base and the earnings of this company have been in 1939? What are you undertaking to do with that?

A. I am undertaking to show here what the company earned on its investment.

Q. As you figured it?

A. If I didn't think that was the investment, I wouldn't have put it down.

Q. It is the investment for property that you say is devoted to a utility service?

A. Well, that is my understanding. Of course, I am not making the determination whether it is devoted to utility service—

Q. It seems to me you certainly have been making that determination throughout these exhibits. You have retired or undertaken to retire certain properties held for future use; you have undertaken to retire properties not used or useful for utility service.

A. May I put it this way: I have made a determination through this series of exhibits—

Q. That is what we are talking about.

A. —referring to Commission's accounting and engineering staff, I have made a determination of what we considered would be gas plant in service. I just thought the word "utility" was a legal question—

Q. Well, you used it yourself so I want to know how you used it in Line 8, Utility Income.

A. That comes from the system of accounts we have used.

Q. Did you in computing this final figure which you are unwilling to say is your rate base, in figuring rate of return on it, consider the limitations of jurisdiction in the Act or was that another matter you were not concerned about?

A. I don't believe I have been concerned with any question of jurisdiction.

Q. So as to whether or not a portion of this property and a portion of its income is subject to regulation in this rate proceeding you have given no consideration to that?

A. I certainly haven't tried to make a determination of that.

Q. I say, have you given any consideration to it in any of your exhibits of the accounting department?

A. I can't recall that we have. We certainly haven't reached any conclusions as accountants in that respect.

Q. You have treated all of the property and all of the income alike, have you not, except the item—I mean, after you have adjusted it, throwing out this, that, and the other, when you finally adjusted both, you treated it as all alike, all subject to a determination as to rate of income?

A. You are just referring to this computation on Page 10?

Q. I am referring to all of the property of the company summarized in this computation on Page 10.

A. Yes, I believe that is correct. We treated it all just as one project.

Q. And you made no segregation either of the property or of income in relation to the character of use to which that property was devoted or from which the income was received such as sales for resale as distinct from direct industrial sales?

A. No, there has been no attempt to do that in these exhibits.

(Vol. 68, pp. 9902-9906.)

* * * * *

(c) *Working Capital* (Ex. 111).

J. L. WILLARD, rate and valuation engineer, on behalf of Colorado-Wyoming Company testified on working capital as follows:

"Working capital has been computed by an analysis of requirements of the company. There are five different forms in which the company requires or employs working capital. The first is a requirement to meet routine operating expenses. It was determined from the books of the company that 48 days expire from the date of first delivery to the time the average bill is received. Annual routine operating expenses were determined to be approximately $106,000, after deducting cost of purchased gas and Regulatory Expense. The ratio of 48 to 365 days was applied to this total, resulting in approximately $14,000 required for this expense. Prepayments such as: Taxes, Insurance, etc., were averaged for a 12-months' period, resulting in an amount of about $2,500. Materials and Supplies were averaged for a 12-months' period which resulted in about $8,200. The minimum cash requirement to preserve credits and to allow for emergency expense was determined to be $20,000. The original filling of gas in the lines is an expense that the company must keep invested and amounts to about $800. The total of all these items in the actually calculated amount results in a total of $45,490 which is the final addition on Statement No. 1" (of Exhibit 111).

(Vol. 25, p. 3541.)

On cross-examination, the witness was questioned and testified, as follows:

"A. I obtained first the operation and maintenance expense of the company for a period of twelve months ending September 30, 1940. This amount was $633,712.65. From that I deducted an amount of $520,333.01, which was the cost of the purchased gas. I also deducted $10,816.89 indicated as regulatory expense. Since gas used by the company—the cost of gas used by the company—was included in purchased gas expense, I had to add back an amount of $3,660.99. These deductions resulted in a total of $527,488.91, which we subtracted from the total operation and maintenance expense, and it gave a figure of $106,223.74.

* * * * *

"I calculated from the books of the company the number of days that expired for the average customer from the time gas was delivered until the time payment for that gas was received, and this resulted in an average of 48.45 days. I adopted a figure of 48 days as the average period from the time gas was first delivered until the time money was received for the gas and for which the company were to have an amount for the routine expenses; and I applied that factor of 48/365 to the routine operation of $106,223.74, which resulted in a total of $13,949 that I determined as an amount that the company must have on hand to meet routine operating expenses. The prepayments of the company were averaged for a 12-months' period, resulting in an average amount of $2,545."

(Vol. 26, pp. 3627-3628.)

The prepayments include prepaid insurance, taxes and attorney fees. These are payable in advance.

The average balance in materials and supplies as reflected on the books of the Company was taken for a 12 months' period and produced an average of $8.151.

A minimum buffer fund to preserve normal bank credits and providing for emergency use was calculated at $20,000.

(Vol. 26, p. 3628.)

"Q. Right there I wish to ask you this: In what fashion did you arrive at that determination of $20,000?

"A. That is strictly a judgment figure based on experi-

ence of the requirements of companies and I think it is a reasonable amount for this company.

"Q. Well, you say experience figures based on requirements of other companies, do you?

"A. Yes, I gained judgment from requirements of other companies.

"Q. In what manner do you relate that to the definite requirements of this company?

"A. Oh, you have to take into consideration the expenses of the company, the amount of banking service that they require and allow for an amount which must be on hand to meet emergencies which quite often come up in a project of this nature.

"Q. Have you related that to the company's actual experience?

"A. I have related my judgment to this company.

"Q. I mean this item of $20,000 as being necessary, have you related that to the company's actual experience in the past?

"A. I have used my judgment as to the amount that a company of this size and character would require as a minimum amount.

"Q. Well, what study have you given to the company's past requirements as to this additional $20,000 that you have set up here as being necessary?

"A. I don't know that the past requirements have a great deal to do with it. A company of necessity must maintain normal credits and you have to have certain funds available at all times to maintain those credits, and you also must have at all times an amount to meet emergencies coming up every day.

"I might say that this hearing is one of them. It has brought on a sizable expense to the company.

"Q. That is true, but did you in determining whether this amount were actually necessary to be included, determine what the company's actual experience has been in the past as to requiring that much cash on hand over and above the $14,000 that you have already said you would provide for?

"A. I believe the records will show that they have on hand amounts equal to what I have calculated there."

(Vol. 26, pp. 3,627-3,631.)

"Q. You didn't get to the $800 item on that page.

"A. That is right.

"Q. What is that?

"A. That is for gas in the lines. The company pays for the first filling of gas at particular pressures it considers an average, and I have calculated the amount of gas that is in the system at all times under these average pressures and applied the original purchase cost of that gas to the amount, arriving at the figure of $825."

(Vol. 26, p. 3,631.)

On pages 3632 and 3638 of Volume 26, the witness testified that the item of $825, gas in lines, had not previously been capitalized.

"Q. Referring to page 6 of Exhibit 111, being still on working capital, what is the company's practice with reference to its payroll? Does it pay salaries and other payroll expenses monthly?

"A. I haven't looked into that matter, but I presume it is semi-monthly or monthly.

"Q. Wouldn't that be a factor you would take into consideration in determining what the working capital of the company would be?

"A. I don't believe so.

* * * * *

"Q. Well, if the company's payroll is payable monthly, or if it is payable semi-monthly, would it have a direct bearing on what the company's money requirements would be in determining its working capital?

"A. I don't see why it would.

* * * * *

"Q. What is working capital primarily based on, the requirements of working capital?

"A. If you are referring to this $13,000 figure, that is a figure to meet routine operating expenses of which the company payrolls are a part; however, I don't see how any company could be expected to make a payroll in two weeks and find the money some place to make it, and make another payroll in two weeks, and find some place to make that payroll before their revenues are received from the sales of their gas.

"Q. You determined 48 days as being necessary?

• • • • •

"A. Well, the company starts delivering gas on a particular day and 48 days after that the average bill comes in. In the meantime they have to incur operating expenses to the extent of about $13,000, and I calculate that as the amount of money they should have on hand to meet such expenses.

"Q. During that thirty days they only have a 30-day payroll, isn't that right?

"A. That is right.

"Q. During the 48-day period they have one payroll?

"A. If they are on a monthly basis, that is correct, but they have to have the money to meet that payroll."

(Vol. 26, pp. 3,632-3,635.)

"During the second 48-day period there are two 30-day payroll pay days."

(Vol. 68, p. 9,845.)

The witness calculated it on an annual basis resolving it down to the monthly situation, due to the factor of 48 days to 365 days, and related that to the annual expenditures.

"Q. Well, if you would only allow them 30 days instead of 48 days you would have an item of considerably less than $13,000, wouldn't you? Or what would that be? Suppose you calculate it on a 30-day basis instead of a 48-day basis, what would you have instead of $14,000?

• • • • •

"A. I would have no reason to compute it on a 30-day basis.

"Q. Why wouldn't you?

"A. Because it takes 48 days before the money comes in, and I have considered this as a ratio to apply to the annual routine expenditures for the amount that the company needs.

"Q. And you are just as certain it would be 48 days and not 45 days as you are of the computation that you have made on this working capital?

"A. Well, the computation is an actual condition that exists on the books of the company through a period of

the last year and a half, taking in the actual billing of gas, and that is the resultant figure of the number of elapsed days, and, naturally, I used it."

(Vol. 26, pp. 3,635-3,637.)

"Q. Then when you get to the computation of working capital, referring back to page 6 of Exhibit 111 again, in connection with the number of days that would expire, you computed it on a 48-day basis?

"A. Yes, sir.

"Q. Well, now, if you just have one payroll to meet during that period, there would just be one payroll in thirty days, wouldn't there?

"A. I believe if that were the interpretation I would choose the second period and there would be two payrolls in the 48-day period.

"Q. Two payrolls?

"A. Yes, two payrolls in the second 48-day period, and this has just been leveled off.

"Q. How do you figure that there are two payrolls in the second 48-day period?

"A. Well, there are only 48 days in the first period but an elapsed period of 96 days in two periods which calls for three payroll periods.

"Q. In an elapsed period of 96 days?

"A. Yes. There would be three payroll periods in 96 days.

"Q. Well, but you have computed your basis of working capital on the item as indicated on page 6 of Exhibit 111 where you say that it was determined from the books of the company that 48 days expire from the date of first delivery to the time of the average bill which is received. When you took into consideration the company's requirements of money during that period, did you base it on the assumption that the payrolls were met semi-monthly or monthly?

"A. I based it on the assumption that their payrolls would have to be on an average period throughout the twelve months period of the year.

"Q. On an average period?

"A. That is right, an average period of 48 days is what I assumed here—not assumed, I calculated here as the amount required to meet the routine operating expenses,

and if a person would try to assume that the first 48-day period required only one payroll it would be equally true that the second 48-day period would require two payroll periods; so the logical thing is to level it off on a per-day basis throughout the year, and so I have taken 48 days."

(Vol. 26, pp. 3,639-3,640.)

* * * * *

Q. You have on Statement 1, Exhibit 111, an item of Working Capital. It is $45,490.

A. Yes, sir.

Q. Will you explain how you computed that item?

A. I obtained first the operation and maintenance expense of the company for a period of twelve months ending September 30, 1940. This amount was $633,712.65. From that I deducted an amount of $520,333.01, which was the cost of the purchased gas. I also deducted $10,816.89 indicated as regulatory expense. Since gas used by the company—the cost of gas used by the company—was included in purchased gas expense, I had to add back an amount of $3,660.99. These deductions resulted in a total of $527,488.91, which we subtracted from the total operation and maintenance expense, and it gave a figure of $106,223.74. I—

Q. All right.

The Trial Examiner: Had you finished your answer, Mr. Willard?

The Witness: No, sir.

I calculated from the books of the company the number of days that expired for the average customer from the time gas was delivered until the time payment for that gas was received, and this resulted in an average of 48.45 days. I adopted a figure of 48 days as the average period from the time gas was first delivered until the time money was received for that gas and for which the company were to have an amount for the routine expenses; and I applied that factor of 48/365 to the routine operation of $106,223.74, which resulted in a total of $13,949 that I determined as an amount that the company must have on hand to meet routine operating expenses.

The pre-payments of the company were averaged for a

12-months' period, resulting in an average amount of $2,545.

By Mr. Lange:

Q. Right there, what do these prepayments include?

A. Those prepayments include prepaid insurance, taxes and legal fees.

Q. When are they payable?

A. They are payable in advance. Payment is made periodically by the company in advance for these three items, and the monthly balances from the books were used to obtain the figure.

Q. Are they payable at six-month intervals in advance?

A. I think one of them is. I don't know, but I think the legal fee is payable six months in advance.

Q. What portion of the total is that?

A. I think the legal fee is paid $2,500 in advance for a six-months' period; there are two such payments. That would result in an average, in my calculation, of about $1250. I haven't calculated that down but I think that is what it would amount to.

Q. About one-half of this amount that you have calculated?

A. Approximately.

Q. All right.

A. The average balance in materials and supplies as reflected on the books of the company was taken for a 12-months' period and produced an average of $8,151. A minimum buffer fund to preserve normal bank credits and providing for emergency use was calculated or determined to be $20,000. The gas in the lines—

Q. Right there I wish to ask you this: In what fashion did you arrive at that determination of $20,000?

A. That is strictly a judgment figure based on experience of the requirements of companies and I think it is a reasonable amount for this company.

Q. Well, you say experience figures based on requirements of other companies, do you?

A. Yes, I gained judgment from requirements of other companies.

Q. In what manner do you relate that to the definite requirements of this company?

A. Oh, you have to take into consideration the expenses

of the company, the amount of banking service that they require and allow for an amount which must be on hand to meet emergencies which quite often come up in a project of this nature.

Q. Have you related that to the company's actual experience?

A. I have related my judgment to this company.

Q. I mean this item of $20,000 as being necessary, have you related that to the company's actual experience in the past?

A. I have used my judgment as to the amount that a company of this size and character would require as a minimum amount.

Q. Well, what study have you given to the company's past requirements as to this additional $20,000 that you have set up here as being necessary?

A. I don't know that the past requirements have a great deal to do with it. A company of necessity must maintain normal credits and you have to have certain funds available at all times to maintain those credits, and you also must have at all times an amount to meet emergencies coming up every day.

I might say that this hearing is one of them. It has brought on a sizeable expense to the company.

Q. That is true, but did you in determining whether this amount were actually necessary to be included, determine what the company's actual experience has been in the past as to requiring that much cash on hand over and above the $14,000 that you have already said you would provide for?

A. I believe the records will show that they have on hand amounts equal to what I have calculated there.

Q. $20,000 plus $14,000?

A. I believe so. Of course, they can go up and down at different periods, but this is a calculation of an amount that really should be a normal balance and allowable in a proceeding of this nature.

Q. Well, but do you relate it definitely to the company's past experience as being actually necessary?

A. I relate it to an amount that I feel is necessary for the operation of this company.

Q. Without relating it to the company's actual experience in the past?

A. I didn't take that into consideration.

Q. All right. You didn't get to the $800 item on that page.

A. That is right.

Q. What is that?

A. That is for gas in the lines. The company pays for the first filling of gas at particular pressures it considers an average, and I have calculated the amount of gas that is in the system at all times under these average pressures and applied the original purchase cost of that gas to the amount, arriving at the figure of $825.

Q. Well, you have examined the company's books and records, haven't you?

A. Yes, sir.

Q. In connection with this exhibit?

A. Yes.

Q. Isn't it a fact that that item of gas in the lines has already been capitalized by the company?

A. I don't know that it has.

Q. You don't know that it has?

A. No, sir, I don't know that.

Q. Would you say it has not?

A. I don't believe it has. I would have to check on that.

Q. But you assumed in reporting it in this statement on Page 6 that that would be an amount that would have to be included in working capital?

A. Yes, that is an amount of money they have invested at all times.

Q. But if it has been capitalized you wouldn't put it in there, would you?

A. I don't think it is properly includable if it has been capitalized.

Q. Referring to Page 6 of Exhibit 111, being still on working capital, what is the company's practice with reference to its payrolls? Does it pay salaries and other payroll expenses monthly?

A. I haven't looked into that matter, but I presume it is semi-monthly or monthly.

Q. Wouldn't that be a factor you would take into consideration in determining what the working capital of the company would be?

A. I don't believe so.

Q. What is the company's payroll?

A. I don't know.

Q. You didn't take that into consideration?

A. It is a part of this $106,000, but whether that is the actual—what the payroll is, I don't know.

Q. Well, if the company's payroll is payable monthly, or if it is payable semi-monthly, would it have a direct bearing on what the company's money requirements would be in determining its working capital?

A. I don't see why it would.

Q. It would not?

A. No.

Q. What is working capital primarily based on, the requirements of working capital?

A. If you are referring to this $13,000 figure, that is a figure to meet routine operating expenses of which the company payrolls are a part; however, I don't see how any company could be expected to make a payroll in two weeks and find the money some place to make it, and make another payroll in two weeks, and find some place to make that payroll before their revenues are received from the sales of their gas.

Q. You determined 48 days as being necessary?

A. That is correct.

Q. When the company begins its operation at certain periods, it begins its billing, doesn't it, for gas sold?

A. That is right.

Q. When does it do that?

A. The billing, as a general rule, is a monthly billing.

Q. All right. A monthly billing?

A. That is right.

Q. And then after thirty days these items that are billed begin *comming* in?

A. No.

Q. When do they begin coming in?

A. On an average of 48 days.

Q. An average of 48 days?

A. All of the time of which the employes are working and will have to be paid—they will have to be paid sometime in the interval.

Q. All right. That is your first billing period, isn't it? I mean, those are your primary operations? What happens after that first month has passed?

A. Well, the company starts delivering gas on a par-

ticular day and 48 days after that the average bill comes in. In the meantime they have to incur operating expenses to the extent of about $13,000, and I calculate that as the amount of money they should have on hand to meet such expenses.

Q. During that thirty days they only have a 30-day payroll, isn't that right?

A. That is right.

Q. During the 48-day period they have one payroll?

A. If they are on a monthly basis, that is correct, but they have to have the money to meet that payroll.

Q. But it is only one 30-day payroll within the 48 days that you have given them allowance for?

A. Well, I calculated it on the basis of—an annual basis resolving it down to the monthly situation, due to the factor of 48 days to 365 days, and relating that to the annual expenditures. I could take the average monthly expenditures and calculate the same amount on a monthly basis?

Q. Well, if you would only allow them 30 days instead of 48 days you would have an item of considerably less than $13,000, wouldn't you? or what would that be? Suppose you calculate it on a 30-day basis instead of a 48-day basis, what would you have instead of $14,000?

A. I wouldn't calculate it that way. The money doesn't come in like that.

Mr. McCreery: I object to the question. It is wholly irrelevant and it is not responsive to the inquiry. If he questions the 48-day period, that is something again, but based on the fact that this witness has testified it is 48 days until the money comes in, if he doesn't question that fact, the rest of it is irrelevant and immaterial.

Mr. Lange: This witness has testified that in his opinion it takes 48 days for the company to get its money in.

Mr. McCreery: He didn't say "in his opinion."

Mr. Lange: That 48 days expired from the first date of delivery.

Mr. McCreery: He said it was not his opinion but a computation from the returns of the average time that the average money came in. It is no opinion at all, it is a computation matter.

Mr. Lange: It is a computation prepared by him and under his views of the matter. It applies to his opinion in the matter.

Mr. McCreery: I don't know what his opinion has to do with that.

The Trial Examiner: What is your question, Mr. Lange?

Mr. Lange: I want to know what the amount would be instead of $14,000 if he had computed it on a 30-day basis.

The Witness: I would have no reason to compute it on a 30-day basis.

By Mr. Lange:

Q. Why woudn't you?

A. Because it takes 48 days before the money comes in, and I have considered this as a ratio to apply to the annual routine expenditures for the amount that the company needs.

Q. And you are just as certain it would be 48 days and not 45 days as you are of the computation that you have made on this working capital?

A. Well, the computation is an actual condition that exists on the books of the company through a period of the last year and a half, taking in the actual billing of the gas, and that is the resultant figure of the number of elapsed days, and, naturally, I used it.

Q. And the number of elapsed days are actually 48 days and no other?

A. Well, I believe I said that I could calculate it—that I calculated it as 48.45 and used 48.

The Trial Examiner: We will stand in recess until 2:00 o'clock this afternoon.

(Whereupon, at 12:30 o'clock, p. m., a recess was taken until 2:00 o'clock, p. m., of the same day.)

Afternoon Session, 2:00 P. M.

The Trial Examiner: The hearing will come to order.

Whereupon, J. L. WILLARD, the witness on the stand at the time of recess, having been previously duly sworn, resumed the stand and testified further as follows:

Cross Examination (Continued).

The Witness: Mr. Lange—

Mr. Lange: Yes.

The Witness: This morning you asked me in regard to the gas in the lines being capitalized on the books of the company.

Mr. Lange: Yes.

The Witness: I haven't had time to go through the books, but I have been advised by the officers of the company and the chief accounting officer that the gas in the lines has not been capitalized on the books of the company.

By Mr. Lange:

Q. Have not been capitalized?
A. Yes, sir.
Q. And who informed you of that?
A. Mr. Davis and Mr. Hurdle.
Q. Mr. Davis and Mr. Hurdle?
A. Yes.
Q. All right, now, did you also ascertain whether the company's payroll is taken care of monthly or semi-monthly?
A. Just in conversation I was advised it was a monthly payroll.
Q. A monthly payroll?
A. Yes.
Q. Then when you get to the computation of working capital, referring back to Page 6 of Exhibit 111 again, in connection with the number of days that would expire, you computed it on a 48-day basis?
A. Yes, sir.
Q. Well, now, if you just have one payroll to meet during that period, there would just be one payroll in thirty days, wouldn't there?
A. I believe if that were the interpretation I would choose the second period and there would be two payrolls in the 48-day period.
Q. Two payrolls?

A. Yes, two payrolls in the second 48-day period, and this has just been leveled off.

Q. How do you figure that there are two payrolls in the second 48-day period?

A. Well, there are only 48 days in the first period but an elapsed period of 96 days in two periods which calls for three payroll periods.

Q. In an elapsed period of 96 days?

A. Yes. There would be three payroll periods in 96 days.

Q. Well, but you have computed your basis of working capital on the item as indicated on Page 6 of Exhibit 111 where you say that it was determined from the books of the company that 48 days expire from the date of first delivery to the time of the average bill which is received. When you took into consideration the company's requirements of money during that period, did you base it on the assumption that the payrolls were met semi-monthly or monthly?

A. I based it on the assumption that their payrolls would have to be on an average period throughout the twelve months period of the year.

Q. On an average period?

A. That is right, an average period of 48 days is what I assumed here—not assumed. I calculated here as the amount required to meet the routine operating expenses, and if a person would try to assume that the first 48-day period required only one payroll it would be equally true that the second 48-day period would require two payroll periods; so the logical thing is to level it off on a per-day basis throughout the year, and so I have taken 48 days.

Q. Well, then, in this statement on Page 6, you don't confine yourself, then, to the first 48-day period?

A. I confine it, you might say, to the average 48-day period of the year.

Q. Oh, the verage 48-day period of the year?

A. Yes, sir.

Q. And didn't take into consideration whether—strike that—and assumed that the payroll would be met monthly, every thirty days?

A. That's right. That wouldn't make any difference whether it was met monthly, weekly or semi-monthly.

Q. Well, it would make some difference if you just confined yourself to this first 48-day period.

A. I said before that I had averaged these routine operating expenditures over a day basis throughout the entire year and taken forty-eight days of that entire expense as the requirement.

Q. But that is not what you say on Page 6 of this exhibit.

Mr. McCreery: Let the statement of the exhibit speak for itself. It is there.

The Trial Examiner: What portion do you have reference to, Mr. Lange?

Mr. Lange: This: "It was determined from the books of the company that 48 days expire from the date of first delivery to the time the average bill is received."

If that is the basis upon which he computed this working capital, I just want to be sure about that.

The Witness: That was computed to get the number of days of routine operating expenditures that the company should have as a part of working capital. It doesn't say that I based the calculation on the first 48 days of operation.

By Mr. Lange:

Q. All right, now, you, in arriving at this 106,000-dollar figure appearing on that page 6, gave that breakdown this morning. Now, isn't it true that in connection with the resulting figure of $14,000, that there is already included in that item of legal expenses, taxes, insurance, injuries and damages, as set forth in Mr. Davis' Exhibit 105?

A. Yes, they are included.

Q. Well, then, if you come along later and set up these items that go into the prepayment total, taxes, insurance, you said the "e-t-c." included legal fees resulting in an amount of about $2,500, you have a duplication.

A. That duplication would be so trivial that it doesn't enter into the calculation to any extent.

Q. It doesn't enter into it to any extent?

A. No. It would only be a very small portion.

Q. But it is a duplication?

A. Yes, it is included there.

Q. And that also applies as to taxes?

A. What taxes?

Q. Well, you have got taxes, insurance, and so forth, and you have it under the prepaid items as well as in the total that is embraced in general expenses and taxes in there, too.

A. I don't know. Those taxes, insurance and legal expenses are prepaid, I believe, but I would have to check to see if they are a part of that 106,000-dollar figure.

Q. I see. Now, these items of taxes, general, as they appear in Exhibit 105 of Mr. Davis, and included in your computation, when are those taxes paid; that is, that portion of the item that refers to advalorem taxes, exclusive of Colorado State Income Tax?

A. I didn't go into that.

Q. You didn't go into that as to the time or times when those advalorem taxes were in fact paid?

A. No, I did not.

Q. Wouldn't that have a bearing on the computation of your required working capital?

A. I don't think it would change it in any way.

Q. It would not?

A. No.

Q. Well, if they weren't paid until the following year?

A. It is a current expense that goes on each and every year that funds must be available for.

Q. And you made no investigation with reference to when they were actually paid?

A. No, sir.

Q. As to what period of time after they became due and were payable they were in fact paid?

A. No, I didn't ascertain that.

Q. Now, I notice that you did not include Federal income tax in apportioning this requirement of working capital.

A. No, sir.

Q. Why?

A. Federal income tax is based on the previous year's revenue which has already been received.

Q. In other words, then, the item of advalorem taxes

that would probably be paid in the following year are on a different plane?

A. Advalorem taxes are not based on any particular earnings of the company, any money that they actually received and continue on year in and year out.

Q. Oh, you treat them in a different fashion, then, than Federal income tax?

A. Yes, sir.

Q. In your working capital computation?

A. Yes, sir.

(Vol. 26, pp. 3626-3645.)

* * * * * *

Commission Exhibit No. 203 (Appendix this Record).

Commission Exhibit 203.

KENNETH L. SMITH, Examiner of Accounts for the Commission, testified on the subject of working capital.

Witness presented Exhibit 203, entitled "Colorado-Wyoming Gas Company, Working Capital," which in his statement attached thereto is described as follows:

"This study was made for the purpose of determining the working capital requirements of Colorado-Wyoming Gas Company and is based upon its operating figures for the year 1939 because they are believed to be indicative of present conditions. It consists of two schedules:

'Schedule No. 1, in which is developed a working capital requirement of $16,234.59, allocable to the company's transmission and distribution operations, and

"Schedule No. 2, which is a computation of the number of days lag between the time of delivery of gas and service and the date when payment for the gas and service is due.

"Schedule No. 2 helps support the conclusion stated in Schedule No. 1, which is that revenue from gas and services is, on the average, due before the cost of distributing gas and

furnishing service is paid for by the Colorado-Wyoming Gas Company."

(Vol. 68, p. 9823.)

"The allowance for material and supplies was allocated by function principally on the basis of the company's classification of material and supplies. That is, items relating to compressing station were allocated to working capital requirement for compressing system, meter stocks to the requirement for distribution system, and so forth.

"The allowance for operating expenses was allocated by function in the proportion that the total amount of each functional expense, as adjusted, bore to total operating expenses as adjusted."

(Vol. 69 pp. 9823-9824.)

Q. Mr. Smith, turning to the title page of the exhibit I note that it bears the approval of Mr. Harold Tomlin, Examiner in charge of regional office, and W. E. Baker, Chief Accountant. The two men whose names appear there under the approval are presently connected with the Federal Power Commission in the capacity therein stated?

A. They are.

Q. Do you have any other statement to make in connection with that exhibit or any further explanation of it?

A. I might state that the principles which have been employed in this working capital study are the same in general that were employed in the working capital studies for the Canadian River Gas Company and Colorado Interstate Gas Company, respectively.

Q. In this proceeding?

A. Yes, which I have previously testified concerning in considerable detail.

(Vol. 68, pp. 9823-9824.)

On cross-examination, the witness testified as follows:

Q. Mr. Smith, referring to the document identified as Exhibit No. 203, entitled "Working Capital," does working capital consist of that amount of money, materials and supplies which a going enterprise must have immediately available constantly to enable it to carry on its operations and pay its current liabilities as they arise?

A. You are speaking of something over and above its plant account entirely?

Q. Aside from the plant account.

A. I think another way of putting what you said—I will put it my way and see if you agree with it. It is all the capital an enterprise would need to carry on its operations over and above its plant account.

Q. And that amount of capital must be available for such needs as and when they arise?

A. You might have a different idea on that than I do. I don't believe that a concern is entitled to carry a huge cash reserve just because it thinks it might need it some time, or necessarily be allowed that in this kind of study because it can point out some demand. My conception of working capital in a study of this kind is an average consideration because of the fact that a company of this kind has a certain amount of flexibility in its handling not only of working capital but of all of its capital. I believe that the proper requirement is an average requirement.

Q. You believe it is an average requirement, or do you not believe that it should cover contingencies of any kind other than the regular direct day-to-day operating cost?

A. What do you have in mind by "contingencies"?

Q. You answer the question and if you want to describe what you mean by contingencies in answering, I will be pleased to have you do so.

A. There should be a reasonable cushion over and above the absolute demands of day-to-day expenses as far as cash requirement is concerned. I wouldn't want to branch out too far on the item of contingency, because I think that the company's experience which I have limited this study to is the best indication of their requirement as of any present time. If those conditions change, then, of course, naturally the working capital requirement might change.

Q. In your study with respect to Colorado-Wyoming Gas Company and in your aditional studies with respect to Colorado Interstate Gas Company and Canadian River Gas Company, you treated from a formula point of view the situation in practically the identical manner, did you not?

A. Yes, generally speaking, that is true.

Q. So whatever cushion, as you state, ought to be pres-

ent, you have adopted precisely the same formula in applying that cushion in the case of each of these three companies?

A. I believe so. The study I made of the requirements of the three companies seemed to indicate to me that their requirements could be met by the application of the same formula.

Q. Have you spent considerable time in working out this formula, Mr. Smith?

A. Yes, I really have. I have given working capital more thought than probably any other phase of this investigation, especially in relation to its size, a relatively unimportant item, but perhaps it is one of the trickiest things in accounting.

Q. I apprehended that is true. In arriving at this formula solution of it you have developed a formula which you think is applicable to the companies generally and have here such a formula?

A. I believe that the general principles of this formula can be fitted to any utility company. I haven't thought about my formula in relation to industrial companies that carry huge inventories of finished goods. That is a different problem.

Q. That is limited to what might be called electric and gas utilities without branching out too far?

A. Well, I believe that the general principles of that formula can be adapted to use in practically any utility company. It might require some modification.

Q. Now, in this particular case with respect to the three companies mentioned, you not only adopted the general principle but you have adopted the formula in detail, have you not, similarly in the case of each of the three companies?

A. Yes, my computation is a detailed computation showing the figures I employed and how I arrived at my results and my reasons.

Q. Now, Mr. Smith, in developing this formula that you have used here, to what did you give consideration—what factors?

A. Well, the computation itself shows that. Schedule 1—

Q. Well, I would like to know what factors entered into this formula.

A. Well, the first consideration there was given to ma-

terials and supplies as a working capital requirement, a stock in the warehouse with which to carry on operations.

Q. And may I suggest for the sake of brevity that in that connection you adopted substantially the average of the materials and supplies carried by this company in that part of your tabulation?

A. I did. I took the monthly balances for the year 1939—the monthend balances and struck an average.

Q. Now proceeding from materials and supplies to the cash requirements, I would like to have you give there in specific form the factors that you applied in arriving at that result.

A. We might think of the cash requirements in two segments; one, a cash requirement to pay expenses, a requirement that carries the company from the time its expenses are incurred until it receives its revenue from the sale of gas. The other factor that has to be considered is a cushion or the minimum bank balances that a company has to have to stay in the bank, and to have a margin to operate on over and above its actual cash demands or requirements for operating expenses.

Q. In this particular case the second factor was entirely eliminated by you from your resultant figure, was it not?

A. No, sir, it was not. My study shows how that was provided for.

Q. You made no provision directly for any bank balances as a cushion, directly?

A. I believe that I did. I didn't add an amount.

Q. You didn't add an amount, so you didn't directly provide for that, did you?

A. Yes, I feel that I did. At least that was my intention.

Q. Now if you will refer to your Note 7 on Page 3 of Exhibit 203, I read that language to mean that you did not provide a bank balance because you were going to indirectly provide a cushion in another manner. Now, maybe that isn't what you meant.

A. Well, if that's your interpretation, it's all right. The point I want to make is that I provided for your minimum bank requirements. Now, whether I did it directly in your language—

Q. I asked you whether it was provided for directly and I take it the answer is no. You say that you did not, but

you covered what was necessary in other ways. Is that the effect of that note?

A. Yes. My formula—it's not mine. I don't know why this formula gets hooked up with me exclusively, because it has been used by a good many other accountants, I understand—but the formula which I have used—

Q. You mean other accountants in the Federal Power Commission?

A. Yes, and others.

Q. That is where it has been developed, isn't it?

A. I don't know that it was developed in the Power Commission. I think that Mr. Charles W. Smith, now Chief of the Bureau of Accounts, Finance and Rates, used this formula before he was associated with the Federal Power Commission. I got my first ideas on it from him and have followed them since, and the same formula was discussed by me with Mr. J. P. Jackson who was formerly Assistant Chief Accountant for the Federal Power Commission and prior to that time he had been the chief accountant for the Pennsylvania Public Utilities Commission, and from my conversation with him I understand that he had used it.

Q. All right, now, you have these two factors. The first factor is the amount necessary to meet these obligations as they come in; that is the relation of incoming revenue to the payment of the bills, briefly. The second is the minimum bank balances. The second is eliminated for the reasons stated by you. Now, will you give me just how the formula is worked out on the first point?

A. Well, go back to Page 1, Schedule 1, and take the expenses which have to be met in cash, shown on Lines 4 and 5, the operation and general expenses and maintenance, and excluding all consideration of gas purchased at that point because of the fact that revenues are received before the gas is paid for, we come on Line 8 to a balance of $63,725.61, representing a yearly total for the year 1939, as adjusted, for the operating expenses of the Colorado-Wyoming Gas Company which had to be met in cash.

Q. During that year. Now, may I interpolate a question there? You also excluded all taxes from that computation, have you not, of operation and general expense?

A. That is right taxes have been excluded, too.

Q. Now go forward in your explanation.

A. Then on Line 9, the allowance for working capital is actually computed by taking one-eighth of $63,725.61 which represents approximately 45 days expenses.

Q. And then how do you arrive at the 45-day period?

A. The basis for arriving at 45 days can be best understood by referring to Page 4, Schedule No. 2.

Q. All right.

A. I take the position, of course, that 45 days in the case of this company is a liberal allowance and I think that is demonstrated by the tabulation on Page 4.

Q. All right, now, how does that demonstrate that, Mr. Smith.

A. Well, on Page 4 I have made a calculation to arrive finally at the weighted average lag in days between the date of delivery of gas or service to customers and the date when the related revenues are due, and I have shown in that table each customer; have indicated the last day of the billing period in Column 2, and the date that that customer is required by contract to pay his bill, in the following month;

Then Column 4—

Q. Now, let me just stop you a moment. Let us assume that the billing period we are talking about is January 25th, in Column 2 on Page 4 of this Exhibit 203, and on the same page in Column 3 you have given the 10th, or in one instance the 15th, as the day in February when that bill is payable under the practice—or contract between the company and its customers, is that right?

A. That is correct.

Q. A period there of fifteen days.

A. That is right, fifteen days from the last day of the billing period, in almost every instance.

Q. Now let's go to Column 4.

A. Column 4 is the lag—the number of days between the time of delivery of gas or service to customers as equated, and the date when the related revenues are due.

Q. Now, by that you take the 15th of January as what you call the equated date, do you?

A. It would be the 10th of January in most instances.

Q. It would be the 10th of January?

A. That's the middle of the period.

Q. From the 25th to the succeeding 25th would make the 10th the middle day?

A. Yes, the middle day of the billing period.

Q. So in that manner you arrive at the figure shown in the fourth column?

A. That is correct.

Q. Now, that figure applies directly and only to the gas —that applies to the payment for gas, doesn't it, to the Colorado-Wyoming by its various customers?

A. Are you speaking now of Column 4?

Q. That is the 30-day period within which the revenue should be received by Colorado-Wyoming from its various customers under your fourth column, under your lag theory of thirty days, is that right?

A. I believe so. We put it another way, I think. In almost every instance it is thirty days, with one or two exceptions. That means that it is thirty days from the average date of delivery of gas to the date that payment for that gas is due.

Q. Now, that is reflected back on Page 2 of this Exhibit 203, is it not?

A. You mean this weighted average lag?

Q. The thirty days.

A. That thirty days we come to is the average for the situation.

Q. On the basis—the basis of the computation is in detail on Page 4 and that is how you arrive at that 30-day lag shown on Page 2 in the second paragraph?

A. Yes, sir, that is a direct reference.

Q. Now, then, how do you arrive at the 40-day figure at the top of Page 2?

A. Well, that is explained in the paragraph immediately preceding, starting at the bottom of Page 1.

Q. Will you explain that in your own terms?

A. Colorado Interstate Gas Company delivers gas to Colorado-Wyoming Gas Company over a monthly billing period which begins on the 26th and ends on the 25th.

Q. As a matter of fact, they read the meters on the 25th, don't they?

A. That is correct.

Q. The billing then comes the first of the month?

A. No, that is the period of delivery from the 26th to the 25th.

Q. And the billing occurs after that period of delivery?

A. Yes. I don't know just when it is billed, but the payment is due on the 20th of the next month.

Q. So that on the gas delivered to January 25th in any year, the payment for that gas would be due on February 20th?

A. That is correct. Now that creates a lag of forty days.

Q. How do you get the lag of forty there?

A. The middle of the billing period in the illustration you used would be January 10th.

Q. And then you carry it over to the 20th of February which makes it forty days there?

A. That is correct.

Q. And that is the method in which you arrive at both of those sets of figures, thirty days and forty days?

A. That is true.

Q. Now, the next paragraph on Page 2, the number of days on the average that cash is due from gas sales or service before payment is due for gas purchases, ten days that is, if I understand you correctly, on the gas delivered by Colorado-Wyoming Gas Company to its customers for the period ending the 25th, they are billed on the first and payment is due on the 10th. Is that what this ten days means?

A. Not exactly. I think there is a better expression of it. Colorado-Wyoming Gas Company is entitled to collect it's money, we'll say, on the 10th of the month and it pays Colorado Interstate Gas Company on the 20th for the same gas; so there is a lag of ten days between the 10th and the 20th.

Q. It is the other way, instead of from the 1st to the 10th, it is from the date it is supposed to collect its money and the day it is supposed to pay for the gas.

A. That is correct.

Q. Of course, the payment for gas on the 20th of the month does not relate, of course, to other expenses?

A. No, not necessarily.

Q. Normally it does not, isn't that true?

A. Well, certainly that contract with Colorado Interstate to pay on that date would have nothing to do with the payment of other expenses—

Q. And normally, unless otherwise agreed, all bills of corporations and individuals are due on the 1st of the month, are they not?

A. You mean the first of the following month?

Q. As soon as they are billed, yes, right after the service is rendered.

A. Yes, that may be true. That may be a true statement.

Q. Isn't it a matter of practice?

A. Well, a good many services in the nature of expenses that are rendered, we'll say, in the month of January, a lot of them might be billed February 1st.

Q. Normally they would be?

A. I believe so, or there might be an arrangement for one or two per cent discount in ten days or net in thirty days.

Q. I say, barring a special arrangement, current bills are normally payable on the first of the month following the time of receipt either of services or materials and merchandise?

A. I believe that is a fair statement.

Q. Now, are those all of the factors that you used in this study in arriving at the figure of $16,234.59 total working capital requirements?

A. No, I don't believe they are all that I have considered.

Q. All right, let's get the rest of them. What other factors entered into this?

A. I would like to point out the fact that Colorado-Wyoming Gas Company has always paid its payroll once a month, so that within any period of 45 days it would only pay one payroll.

Q. Are you sure of that? If you take a particular 45 days you want to select, it would be one payroll, wouldn't it, but to take another 45-day period that I might select, you would find two payrolls in there?

A. Wait a minute. I haven't finished.

If you have collected your revenues for your first 45-day period before you meet that payroll. You see that's the difference.

Q. But you assume that the first 45-day period has only got one payroll instead of assuming, as may be the case, that there may be two payrolls. You see they alternate, and you have taken that alternate which reduces the requirements.

A. Well, we will use the month of January, then, as an illustration.

Q. It doesn't make any difference which month you use, which 45-day period, you assume for the purpose of working capital that the first 45-day period is not one in which there happens to be two payrolls, instead of the succeeding 45-day period in which there happens to be two payrolls. Now, you get a different result if you assume one or the other, do you not?

A. No, I wouldn't have got any different result because I have allowed 45 days expenses, anyhow.

Q. I see.

A. I am merely pointing out a fact here that I believe helps support my position that 45 days is a liberal allowance.

Q. That is one of the factors you took into account?

A. In saying that 45 days is a liberal allowance for expenses, that is one factor.

Q. What is the next one?

A. The next one is, there was a lag of only 30 days between the time that gas is delivered and service is rendered to the time revenues are collected.

Q. To the time revenues are collected or due?

A. To the time due.

Q. That is a different story.

A. All right, I will talk with you about the collection any time you want to.

Q. We will get to that pretty soon.

A. All right. I think that those factors together with those stated—I believe those are the principal factors in arriving at my conclusion that 45 days expenses was a liberal allowance for that purpose.

Q. Now, then, that is the basis upon which you arrived at that figure?

A. Just with respect to the results shown on Line 9.

Q. Line 9?

A. Yes. I want to discuss depreciation and taxes and bank balances separately because I have considered all those items. Shall I proceed?

Q. No, I will ask you questions.

A. All right.

Q. You have considered that item plus the material and supplies and those are the only two items that entered into your computation of the requirements of the company for working capital when you got it reduced to dollars?

A. That is correct.

Q. Now will you explain just how under your theory a minimum bank balance, a buffer fund, is dispensed with now?

A. Turn to Page 2, Note 4, and you will note—I think we can kill two birds with one stone. It shows why you don't need any working capital for taxes and this tabulation also indicates why the minimum bank balances are provided fully and adequately by the natural operations of the business.

Q. Tell me just how that is done.

A. Referring again to that tabulation, we show that the total taxes which Colorado-Wyoming Gas Company charged in its expenses for 1939, as adjusted, amount to $57,105.58. The tabulation also shows that the taxes in approximately the sum of $3,000 were paid at various times during the year 1939, whereas, in excess of $54,000 of those taxes were paid in 1940.

It is evident that the principal portion of the $54,000 consists of Federal income tax applicable to the year 1939 and as accrued on the books in 1939 and was paid in quarterly installments in 1940, on March 15, June 15, September 15, and December 15.

Now, by reason of the extended lag between the time that the Colorado-Wyoming Gas Company collected its revenue from its customers and the time that it was required to pay its taxes, there is a substantial bank balance created. It should average considerably more than $25,000.

Looking again to the $54,000 figure representing taxes accrued in 1939 and not paid until 1940, that would represent an average right there, assuming equal monthly accruals, approximately equal, or at least averaging out over the period of the year would by taking one-half of $54,000 which would be $27,000.

Of course, that cycle goes on year after year except, of course, for the first year the company was in operation when it wasn't required to pay any taxes, so we might think of a particular example. Take the revenue for the month of Jan-

uary which we will assume was collected on the 10th of February, as it is supposed to be. A certain segment of that revenue is collected from the rate payers, the customers of the company, to cover Federal income taxes, none of which is payable until a year from the following 15th of March and a portion of which is not payable until a year from the following 15th of December, so the bank balance is provided without any question.

Now, somebody might say, "Well, the money isn't in the bank; it isn't there; we don't have it." If it isn't in the bank it simply means you have invested that money in materials or supplies or in plant, and if you have done that you are clearly getting a duplication, assuming that the plant and materials and supplies all go into the rate base.

Q. Now, Mr. Smith, this, as I understand it, while it is quite a theoretic approach, is to produce a practical business effect of giving a company sufficient working capital without embarrassment in order for it to carry on its operation; that is the practical purpose of working capital, is it not?

A. Yes, sir, and that is the very purpose I had in mind.

Q. All right, let's go back for one moment to Sheet No. 1. In Line 4, "Operation and General," you have included nothing for taxes, have you?

A. Nothing for taxes.

Q. Now, you get down to Line 7 and talk about gas used in operation of the company, $4,138.65. With respect to that gas there is no revenue that ever comes in?

A. Yes, there is.

Q. No, not to pay for that gas any more than there is to pay for lubricating oil in the compressing engines.

A. The revenue received is to pay all expenses.

Q. Why don't you strike out lubricating oil from the compressor station, then, if you strike out gas? How do you distinguish between the two? They are both operating expenses.

A. That is correct.

Q. How do you distinguish between them?

A. The difference in the manner and time in which they are paid.

Q. That hasn't anything to do with your striking it out here, has it?

A. Yes, it has.

Q. I think not. It is a straight operating expense. Suppose it is paid in exactly the same way as the gas bill?

A. If your lubricating oil—if I knew you had an arrangement and didn't pay your lubricating oil until you had received your revenue of which the lubricating oil was an expense of producing, I wouldn't allow you a nickel for your lubricating oil.

Q. Suppose we used gasoline instead of gas in connection with the operation?

A. You would probably pay for it in ten days.

Q. You don't know about that, do you? You may pay cash for it, as far as you know?

A. You mean for your gasoline?

Q. This was taken out because the revenue for this was coming in. This is your statement. There is no revenue in that part of the gas.

A. I don't agree with you at all.

Q. You refer to Note 2 and state it in your notes. All I am doing is taking what you say.

A. I want to make a statement here. All that any revenue is is an amount received from customers to reimburse the company for its expenses and the cost of gas, so by that line of reasoning, which is without any flaw at all, I am sure, the gas that is used in operation enters into expenses, of course, and it is a good deal like the other purchased gas. It is all expense and the revenue comes in to cover all of the expenses of the company.

Q. That is a different proposition than saying the revenue for the gas. This gas is simply a matter of expense like lubricating oil or labor, as far as that is concerned, isn't it?

A. I could say all of your purchased gas, looking at the expenses as a whole, is like any other expense. It is an expense of operation, doing business. You couldn't do business without it.

Q. There is no question about it. It is a commodity, we will say, isn't it?

A. That is right.

Q. You treated, and do treat throughout all these exhibits, gas purchased and other expenses as separate and distinct

items. In other words, the gas sold by the Colorado-Wyoming Gas Company is collected for as gas. What is collected in addition is to cover expenses and return on the investment, but it is collected for as gas. This is not collected for by anybody as gas, is it?

A. But it is collected for—

Q. Just a moment. Please answer my question. It is not collected for as gas any more than the lubricating oil is collected for as lubricating oil?

A. I can't follow you. I don't understand your question.

Q. How about the taxes? As I understand the taxes, we are trying to build a fund that will meet the cash needs of this company from month to month. In that connection, while we are accruing—as I understand an accrued item on the books, unless it is reflected in some sum set aside for that purpose it is not working capital just to accrue an item on the book entry. We are talking about the amount of material and cash on hand which hasn't anything to do with the book entry of accruals as a practical matter.

A. Yes, but you are overlooking the fact that your revenues come in in cash.

Q. In 1939 you have the taxes to pay for 1938, while you are waiting to pay the taxes for 1939 in 1940. Of course, I know your answer to that. Give it.

A. Well, the answer to it is simply that your revenue for 1938 taxes come in in 1938. You don't pay for those taxes until 1939, that is, for most of them, and of course that thing goes on year after year.

Q. That is right.

A. But the fact still remains that you go to your rate payers and you get your money and you get it a year or a year and a half in advance before you pay those taxes. If that doesn't show up in your bank account, it means you have it in your materials and supplies or in your plant account, and it can't mean anything else.

Q. Any amount of money that isn't in working capital, in cash, materials, or plant, aside from anything that is set aside in a retirement reserve of any kind may be taken out by the company at any time? It doesn't have to be left so you don't have the money in just because you included it on the books unless the working capital provision provides for that accrual?

A. I don't agree with you at all.

Q. You don't agree with me at all?

A. No, sir.

Q. What about prepayments, Mr. Smith? the accounts that are prepaid?

A. I believe that prepayments which are substantial in amount will have to be provided for in a separate item. I think taxes can be considered as one whole proposition, that is, I just put prepaid taxes in with accrued taxes.

Q. You put both prepaid and current taxes in with the taxes that are paid a year behind? You didn't separate them?

A. Where the prepaid taxes are relatively small in relation to the total taxes I believe that is an equitable treatment. Of course, if your taxes were largely paid in advance instead of afterwards, why, then it would be a different question.

Q. Suppose the prepayment made by the company, the average for the year, would be $2500? It would amount to that average sum from year to year. Is that a sufficient sum to require notice from you?

A. You are speaking now just of taxes?

Q. No, I am speaking of prepayments of insurance and other items that companies ordinarily prepay and which this company does in fact prepay.

A. I think that possibly an average balance of $2500 per year for a little company like this one might call for some attention.

Q. What about the tax item in a little company like this where your current taxes are paid on the average in excess of $3,000? I have reference to current taxes, not taxes for the year in which they are paid. Suppose those ran $3,000?

A. They were paid mostly after the revenue started coming in to cover those taxes. I think that would be sufficient justification to include all taxes in one basket and forget it.

Q. And similarly with any amount of prepaid taxes of which there are some every year?

A. Again, if they amounted to a relatively small figure I would put them in one basket.

Q. Wherever the items are just decided against the company on these items?

A. No, I don't believe that is right. I believe in putting

them in one basket where you have a substantial lag in payment of a great portion of your taxes. It equalizes it and it is entirely equitable for the company.

Q. Do you know, Mr. Smith, what the actual lag in payment by the various customers of Colorado-Wyoming Gas Company is for the years 1939 and 1940?

A. I made some study of that. As far as making computations, I didn't reduce it to dollars and cents. From inspection of the records it didn't appear to be necessary because there is a substantial margin between the thirty days and the forty-five days.

Q. Would it make a difference in your viewpoint if it appeared that the lag in payment in the case of the period mentioned, all of 1939 and half of 1940, in the case of Cheyenne Light and Fuel Company was fifty-one days?

A. It would not make any difference, and I will tell you why. I have a very good reason for that. The Cheyenne Light & Fuel Company is a subsidiary of the Public Service Company of Colorado as is the Colorado-Wyoming Gas Company, and they have a contract to pay at a certain time, so the fact that a company which was an affiliate was being granted extra time wouldn't—I think they would have to be held.

Q. What about the Colorado Portland Cement Company? What about it if it should show a lag in excess of 48 days?

A. Is this 48 days from the time—

Q. It is under your formula.

A. My formula?

Q. Yes, sir, the same formula you are talking about. The Denver Pressed Brick Company, suppose it showed a lag of 159 days?

A. I knew the Denver Pressed Brick Company was a little bit slow.

Q. That is a $10,000 account, too.

A. I don't recall from an examination I made that the Colorado Portland Cement Company has a lag of that kind. In applying those things, have you computed a weighted average lag in days for the whole picture?

Q. As nearly as I can get it, it gives a weighted aervage in excess of 48 days.

A. I mean for all customers.

Q. Yes, for all I have here which includes about 95 per cent of them.

A. What effect did Public Service Company of Colorado have on that?

Q. The Public Service Company of Colorado appears to be 46 days.

A. Well, there again the lag is influenced by the payments from *and* affiliated company.

Q. There is the United States War Department, 48 days. You have talked about averages. Let me ask you this question: A man may have an average bank balance of $2500 throughout the year, may he not, and still at various times in the year, if the bank will permit it, be overdrawn in his account? In other words, the demands vary not only from month to month but different seasons of the year, do they not?

A. You are speaking of a man's personal bank account?

Q. Yes. I am just taking the application of averages. You have made this on the basis of averages.

A. I don't like to see personal bank accounts brought in as comparisons because they are not comparable.

Q. Take a corporation bank account, then. In other words to get a practical working operation here, even under your own formula, doesn't it look as though you have been rather severe?

A. Not after you analyze it carefully. It looks as if I have been very liberal.

Q. We have looked it over from a point of view of how bills will be paid, not a theoretical formula, and that makes some difference.

A. Did you go through and make a tabulation of how much of your money was invested in materials and supplies and plant, and count that in?

Q. The materials and supplies are set out separately, set out as a separate item there, and it is carried along at about the same rate from year to year. You have assumed all the way through here quite a number of things. The operation of a natural gas business is in many respects a hazardous business and it is known to be such, isn't that true?

A. I have heard opinions to that effect. I am not prepared to reach any conclusion.

Q. You are not prepared to controvert that statement, though?

A. I won't take a position on it.

Q. You won't take a position on it.

A. No.

Q. It would seem to me that that is a matter that should have entered into consideration, but obviously, from what you say it didn't enter into your consideration in connection with what might be extraordinary emergencies for a corporation of that type?

A. Well, I think I can answer that in this way: My computation is clearly labeled that it is based upon operation for the year 1939.

Q. That is right.

A. And I know of nothing that has happened in 1940 that would make that approach invalid. The results for 1940 might be a little different. I haven't checked it.

Q. But as I understand in this you haven't taken into account anything except the definite set operating expense account of the company; aside from anything else and beyond that you haven't anything set up in your working fund?

A. I have taken the company's experience for the year 1939 and I have reviewed their experience for the prior years without computing it in detail, which led me to the conclusion that in no year prior to 1939 would it have required a greater working capital than I computed for 1939.

Q. Under your approach?

A. That is correct. So I in effect had the benefit, you might say, of about fifteen years of the company's experience or history.

Q. And you didn't find in that period any extraordinary situations, or did you look for them?

A. I didn't find anything—

Q. As a matter of fact, you really didn't look for them, did you?

A. Except to review the working capital requirement on this approach.

Q. On the basis of your approach set forth here on Page 1 in the ordinary expense as you pared them down?

A. You say "pared them down?"

Q. Yes, from what they actually were. With the exclu-

sion of various items for whatever reasons you assigned for them, they were cut down from what they were on the books?

A. They are my adjusted expenses as in Exhibit 202.

Q. They don't tie exactly into Exhibit 202.

A. But my basic starting point was Exhibit 202.

Q. Now, then, of course, since you have taken 1939, there has been no allowance at all in your figures for regulatory commission expense?

A. No, that is correct. That is recognized.

Q. And under the Uniform System of Accounts of the Federal Power Commission, those are to be put on the books as an expense for the year in which incurred and paid. Certainly that is true in 1940, even though techincally you may say this Uniform System of Accounts didn't bind in 1939 so far as you are concerned. The Commission, as I understand it, has neither directed or permitted any change in that entry, yet you have reversed the entry and have taken it out. I want to know what authority you had to do that, because it has a bearing on the working capital you computed you say definitely on the year 1939?

A. We touched upon that point yesterday.

Q. We are touching upon it again.

A. I wanted to suspend those expenses for the consideration and disposition of the Commission.

Q. But you didn't suspend them. You took them clear out of all your accounts?

A. I put them in a balance sheet account, a suspended account.

Q. I understand that. You have taken them out of income account and have given no reflection of it in working capital. By what authority did you do that? Were you directed by the Commission to do that?

A. I don't recall that I was directed. My work has been approved by my superiors—

Q. I am just trying to find out the procedure. Was that done as far as you know on your own initiative or under someone's direction?

A. As I recall those particular things, I think I made up my mind how I thought they ought to be handled and asked the chief accountant Mr. Baker whether or not he would approve the procedure and he did approve it before

it was done. I think I wrote a letter about that item specifically to Washington last summer.

Q. That you had requested their views, however? Was that letter in response to your request?

A. I said I proposed to do certain things and asked whether or not it was approved and it was approved.

Q. I wonder if you could bring in that letter?

A. I may be able to dig it up. I don't think I have it here right now.

Q. If you will, please produce that letter.

A. All right.

The Trial Examiner: We will stand in recess for five minutes.

(At this point a short recess was taken, after which proceedings were resumed as follows:)

The Trial Examiner: The hearing will be in order.

Mr. McCreery: Just one or two more questions at this time on this.

Q. Mr. Smith, how much of a buffer fund do you figure you have provided this company in this study on working capital evidenced by Exhibit 203?

A. I hadn't made an exact computation, but I think that reference to my schedule of tax payments there would indicate that that buffer fund is not less than $25,000, and I believe that would be a very conservative figure.

Q. You think there is a buffer fund there in the workout of this of about $25,000?

A. Not less than $25,000.

Q. Not less than that. That is on what assumption?

A. There is approximately $54,000 in 1939 taxes that won't be paid until 1940, and therefore the average accrual of taxes for the year 1939 which were not paid until 1940 would be one-half of $54,000 or about $27,000. Now, that doesn't give any consideration at all to the fact that there is still a further lag in the payment of those taxes because 1939 income taxes are paid on March 15th, June 15th, September 15th, and December 15th, 1940.

Q. That is the income tax?

A. Yes, sir.

Q. Not the property tax?

A. The property tax I believe is payable in February and August.

Q. January——

A. Or January and August,—not quite as much of a lag there.

Now, I believe that it follows that $25,000 as a buffer fund is very conservative in the light of those facts.

Q. As a matter of fact, the total tax bill for the year is somewheres from 90 to a hundred thousand dollars, isn't it —all taxes of every kind?

A. Not for the year 1939. The total bill there was about $87,000.

Q. So your idea would be to divert from the accruals for taxes, money for any other contingencies on the expectation and hope that the money would then be returned in time to pay the first accruals on taxes, is that it?

A. That is not an accurate statement of the situation because that is not what happens. There wouldn't be any diverting—

Q. I don't mean it is set aside as a trust fund, but it is accrued for that purpose according to your theory.

A. The significant fact is that the revenue is received and an accrual is made for taxes. Now, the revenue that is received—the cash, merges in with the general fund of the corporation, and it carries on its business and places those funds, presumably, where it thinks it will be the most advantageous and it operates along from month to month and meets its requirements from month to month, so there isn't any setting aside or diverting of funds at all. It simply means that where there is a significant lag in the payment of taxes as compared with the time that the revenue is received to cover those taxes, it simply means that the funds are in the company's possession and whether the company keeps the funds in the form of cash or invests it in plant or material and supplies—

Q. Of course, if it is invested in plant it goes out of any working capital and goes into plant account, doesn't it?

A. Yes, that is the very point I am making, that you have it in your plant account as a plant item, even though—

Q. Well, if you make capital additions, of course, but

your contingencies don't all involve capital additions, do they?

A. Well, I don't know just what contingencies you might be referring to.

Q. All right, now, it is significant to you at all that at almost any time that you—take a balance sheet of this company for 1939, the outstanding accounts receivable will aggregate $90,000 and that current and accrued liabilities ordinarily run from a hundred to a hundred and fifteen thousand dollars. Is that of any significance in connection with your theory and formula and study?

A. I don't believe it is in the case of this balance sheet.

Q. Now, one or two other questions at this time.

I gather from what you say that you believe that there ought to be a buffer fund, however it may be provided, but that there ought to be in this kind of an operation a buffer fund, and you believe it is provided in another way, but you do believe that there ought to be a buffer fund, do you?

A. Yes, there should be some sort of a cushion.

Q. How much of a buffer fund do you believe is required by this company in its operations from your knowledge of this company? Is the $25,000 that you speak of adequate?

A. I believe that it is.

(Vol. 68, pp. 9831-9866.)

* * * * *

Company Exhibit No. 246 (Appendix this Record).

(d) *Going Concern Value* (Ex. 246).

F. C. HAMILTON testified on "Going Concern Value," on behalf of the Company. (Vol. 84, pp. 12,447-12,515.)

Direct Examination.

Witness resides at East Orange, New Jersey; has been engaged in making valuations for various purposes for public utilities and natural gas pipelines; and has made numerous studies and valuations over a long period of time. The first natural gas pipeline upon which he, as a valuation engineer, worked was in 1918. His work has been over

the United States generally wherever there is production and transmission of natural gas. It has included portions of Canada, northern New York, Pennsylvania, West Virginia, Ohio, Kansas, Oklahoma, Missouri and Colorado; and his studies have been made for the purpose of presenting information to various state public utility commissions, courts and the Federal Power Commission, for valuation and rate-making purposes. In addition his valuation work relates to authorization of security issues, taxation cases, bond houses and insurance companies for the sale of securities or properties. It has also included many cases involving the purchase and sale of natural gas pipelines and distribution systems. From December 1, 1925, to September 30, 1935, witness was a member of the Executive Committee of Henry L. Doherty & Co. and charged with negotiations for purchase and sale of properties which Cities Service Company either was acquiring or disposing of. At all times witness was permitted to work for companies outside the Cities Service organization and has worked for numerous non-affiliated companies of which the witness named several. (Vol. 84, pp. 12,450, 12,462.)

He has valued two billion dollars worth of public utility property, including approximately five hundred million dollars of natural gas properties. He has had an organization of men engaged in this work for many years, at present consisting of about 70 men. This force has varied from 12 to 75 men during the last 23 years. (Vol. 84, p. 12,451.)

In connection with such valuations he has had occasion to consider the problem of going concern value. He testified: "Going concern value is an amount which a willing buyer will pay a willing seller for the attached business and stabilized and seasoned organization, over and above what he would pay for the bare physical property." (Vol. 84, p. 12,452). It is an item given consideration in the purchase and sale of natural gas properties. In all transactions of purchase and sale with which the witness has been connected, going concern value was always considered and valued in some manner. The *witness* "never knew of any purchase or sale in which there was not very careful consideration given to the business attached." (Vol. 84, pp. 12,452, 12,453.)

Exhibit 246 (see Appendix) identified by the witness (Vol.

84, p. 12,453), is a tabulation showing volume of gas sales and the number of customers served directly or indirectly by Colorado-Wyoming Company since its organization in 1925. The first page shows the number of customers attached directly and indirectly from 1925 to 1940; indicates that the total number of customers has grown from 4,124 in 1926 to 16,404 in 1940, an increase of 298%; and that there has been a consistent growth with the exception of the depression years 1931, 1932 and 1933. (Vol. 84, pp. 12,453-12,454.)

The second sheet of the exhibit is identical with the first, except that it concerns itself with the sale of gas by volume, during the same period from 1925 to 1940, and shows an increase from the initial sales of 5,098 M. c. f. in 1925 to 3,209,111 M. c. f. in 1940. (Vol. 84, p. 12,454.) The average customer under resale contracts has, in the period from 1926 to 1940, increased his use from 50,300 cubic feet to 113,700 cubic feet (Ex. 246); an increase of 63,400 cubic feet, or 126%.

Witness has been familiar with the operation of Colorado-Wyoming Company, its system, the method under which it has been run, and the financial returns of the Company since its origin, through his work on the Executive Committee of Henry L. Doherty & Co. (Vol. 84, p. 12,455.) He is very familiar with the entire construction of the Company's system, including both the original Fort Collins-Cheyenne System (Vol. 84, p. 12,456), served by the Wellington Field, and the enlarged system created by the building of the Arapahoe-Fort Collins line and branches, served by gas purchased from the Colorado Interstate Company. The checking of all requisitions for construction and annual estimated operating budgets for the ensuing year, over a long period of years, has given him a clear insight into the Company's operations and management. (Vol. 84, pp. 12,455, 12,456, 12,463, 12,464.)

On this point the witness testified:

"A. • • • Monthly those estimates were checked against the actual results and were revised or the differences explained, which gave us a background to check two things. One was to check the operating ability or the estimating accuracy of the men on the property and another one was

to give my people a chance to check their estimates of construction costs which were made in advance against what actually took place.

"Q. So that you were very closely familiar with the entire construction of this company's system, both the original system between Fort Collins and Cheyenne as served by the Wellington field and the enlarged system created by the building of the line from Fort Collins to Littleton and the purchase of gas from the Colorado Interstate Gas Company at point for service of the entire system?

"A. That is true."

(Vol. 84, p. 12,456.)

We have considered the management efficient, and the Company has, during the period of its life and in connection with the growth and volume of business and number of customers, enjoyed a favorable financial return.

He testified the property which is only making its operating expenses would have a going concern value if it had customers attached, for the reason that with customers and an adequate supply of gas an efficient management can be substituted to correct the fault that lies behind the lack in revenue. In this connection the witness stated he had had considerable experience with a natural gas pipeline system which at the time of its purchase was not even making operating expenses. The Cities Service Gas Company was originally built up out of three or four pipeline companies, all of which were in the hands of receivers. The receiverships resulted from the fact that they were built and operated by people whose experience in the natural gas business was in Pennsylvania, where the life of gas wells is very much longer than it is in gas fields in the Mid-continent area, which were supplying these various pipelines now owned by Cities Service Gas Company. These companies found themselves out of gas, and their public relations were very poor. They did have many customers attached. Cities Service Gas Company bought these properties, realizing the situation, and thereupon secured an adequate supply of gas and established better public relations. The attached customers of these bankrupt concerns constituted a real value aside from the physical properties themselves, and this intangible value was not destroyed by the annual deficit. This

intangible value the witness defined as "going concern value." (Vol. 84, pp. 12,458, 12,459.)

The witness *Hamilton* then further testified as follows:

"Q. From your knowledge, Mr. Hamilton, over a long period of years in the operations of the Colorado-Wyoming Gas Company's property and your experience which you have briefly summarized in connection with natural gas properties over a good many portions of the United States, do you have a judgment as to what a willing buyer would pay a willing seller over and above physical value of the property of this company for that intangible value which you defined as going concern value?

"A. I do, yes, sir.

"*Mr. Lange:* Physical value, what did you have in mind by that, Mr. McCreery?

"*Mr. McCreery:* I had in mind the bare bone physical value.

"Q. Is that what you understood me to mean when I asked the question, Mr. Hamilton?

"A. Yes, sir.

"Q. What in your judgment is that value in the case of this company?

"A. I think it is $175,000.

"Q. Would your opinion as to going concern value be altered by the fact that the company might have spent as much as a million dollars to create it?

"A. No. Cost and value are only synonymous by accident. An inefficient operating force could spend twice or three times as much as the business would be worth after they got it, and of course you would pay what it was worth. You might have a particularly favorable circumstance where they wouldn't have to pay as much as it was worth to establish it.

"Q. Would your opinion as to what the going concern value be altered by the fact that the company might have spent but very little to attach the business it possesses?

"A. No, it wouldn't.

"Q. In other words, that intangible value is an existing fact in your mind?

"A. That is true. Somebody may have given me my

cuff links as a present and they might not have cost me anything, but they have a value and I wouldn't let somebody else take them away from me because I didn't pay anything for them."

(Vol. 84, pp. 12,459-12,460.)

On cross-examination the witness testified:

Cross Examination.

By Mr. Lange:

Q. Mr. Hamilton, did you at the beginning of your statement state what particular professional occupation you classify yourself under?

A. I just call myself a valuation engineer. That is what I have been for a little over twenty years and I am now employed by Electric Advisers, Inc. and was previously employed by Cities Service Company, and previous to that I was employed by Henry L. Doherty & Company in that capacity.

Q. You stated that among the various assignments you had worked upon was one before the Federal Power Commission. You mean you presented some study before them at somebody else's request?

A. I presented valuation of the physical property of the Natural Gas Pipeline Company of America.

Q. In other words, you presented it at the instance of Natural Gas Pipeline Company of America before the Federal Power Commission?

A. Yes, sir.

Mr. McCreery: It wasn't suggested that he was acting for the Federal Power Commission.

Mr. Lange: I didn't get his statement very clear.

Q. How long have you been engaged in this character of work for Electric Advisers, Inc.?

A. Since their organization about—I think I can give you the exact date.

It was from January 1, 1938 when it was organized.

Q. January 1, 1938?

A. Yes, sir.

Q. In connection with this work—strike that.

Previous to that employment or engagement with Electric Advisers, Inc., did you have occasion to follow your profession of valuation engineer in rate proceedings?

A. Yes, sir, I did. I was employed from October 1, 1935 to December 31, 1937 by Cities Service Company and prior to that, from April 1, 1917 by Henry L. Doherty & Company.

In other words, my work with Electric Advisers, Inc. is just a continuation of the same work I have been doing since April 1, 1917, Electric Advisers, Inc. being formed under the approval of the S. E. C.

Q. So this particular character of work has been confined almost entirely to the various Cities Service organizations?

A. Principally, that is true, but I have done a considerable amount of work for other natural gas organizations, particularly on the outside.

Q. Did you have anything to do with or did you have any knowledge of the situation with reference to the Colorado-Wyoming Gas Company at the time of its organization?

A. Yes, sir, because all of the preliminary negotiations and setups were conducted and presented to the Executive Committee of which I was a member.

Q. Colorado-Wyoming Gas Company was formed about the year 1925?

A. Yes, sir.

Q. And at that time its facilities extended from what point to what point?

A. It extended from the Wellington field to Cheyenne.

Q. The Wellington field in Colorado and to Cheyenne, Wyoming?

A. Yes, sir. When those various properties came in they first supplied the Fort Collins district. That was in 1925, and in 1926 Cheyenne was supplied.

Q. Where was the gas supplied from?

A. From the Wellington field.

Q. From the Wellington field?

A. Yes.

Q. Did you know anything about the production of gas in that field or the ownership of the producing properties in that field?

A. No, sir, I did not, because I didn't have anything to do with the geological studies that were made.

Q. Do you know anything about that at all?

A. No, sir.

Q. What consideration did the Cities Service group give to that phase of it at that time?

A. Well, they had the advice of a very large geological department, advice that was presented to the Executive Committee as to what we might reasonably expect out of that, and it was on the beginning of decline of that field that other sources of supply began to be considered.

Q. What other sources?

A. The Colorado Interstate.

Q. The Colorado Interstate Gas Company?

A. Yes, sir.

Q. That was the source of supply being brought from the Texas Panhandle field through the Canadian River Gas Company's and Colorado Interstate Gas Company's lines?

A. To Denver, yes, sir.

Q. To Denver?

A. Yes, sir.

Q. When was that? What I mean by "when was that," was, when did your group first start considering the use of that gas for supplying your customers?

A. I can't recall when that contract was made, but I know it was a long time before the contact was made, because the negotiations for both the Denver situation and later for the building of the line to Cheyenne took a long period of time. I would have to go back to diaries to—

Q. Was it some period of time prior to that that the contract was actually executed or dated?

A. Yes, sir.

Q. What was the mileage of pipe line that your company, the Colorado-Wyoming Gas Company, had at that time, in 1925?

A. I would have to refer to the maps to get that, because I think there is 195 miles of pipe line in the system as a whole now, but I couldn't divide it up for you without reference to the maps.

Q. You just know the points of service during that time? What were they?

A. The points of service at that time were Cheyenne, beginning in 1926; Fort Collins, beginning in 1925—but that was a small sale—in 1930, Fort Logan, Greeley, Fort War-

ren—I think that—I can't give you the exact dates in those years but those are the approximate years.

Q. You are now referring to the companies that distributed and resold gas?

A. Yes, sir.

Q. What about the direct industrial sales? When were they attached?

A. The Colorado Portland Cement Company first came on in 1927, the Great Western Sugar Company in 1929, the Amerada Petroleum Company in 1936, the Denver Pressed Brick Company in 1937. I think those are all I can give you.

Mr. McCreery: The respective dates appear by reference to these charts, do they not?

The Witness: I don't believe they do.

Mr. McCreery: I mean by reference to the volume of gas. It shows when gas was first used by these various customers, does it not?

The Witness: Yes.

Mr. McCreery: The year but not the exact date.

The Witness: If you will look at your volume of gas you can find the year in which a volume first appeared against those particular companies.

Mr. Lange: I see.

Q. Now, this group of customers that is set forth on this Exhibit 246—was this document identified?

The Trial Examiner: Yes, sir.

By Mr. Lange:

Q. —indicates the total customers served by Colorado-Wyoming Gas Company. These figures were obtained from where, Mr. Hamilton?

A. They were furnished to me by my people from the records of the company.

Q. They are not on any—strike that.

The second page sets forth the Mcf. sales which are on varying contract pressure bases, aren't they?

A. At the pressure base at which it is sold.

Q. At the varying pressure bases which it is sold?

A. Yes.

Q. There is no uniform pressure base calculated?

A. No, sir, there is no uniform pressure base calculated, because if you did you couldn't check your total sales against the records without showing an apparent error.

Q. And if you don't do that you have figures as you have set them up on Page 2 just like you would have in adding apples and potatoes?

A. Not quite, because there isn't such a variation between those pressure bases. It was shown in there to indicate principally the increase, customer by customer, of the sales, and of course each individual customer is a continuing pressure base.

Q. Going back to Page 1 of this Exhibit 246, the first sheet, there I see you have a group—rather, you have about 17 different places of sales on the system, is that correct? You don't have the number there, but adding them up I find you have a line following through your distribution companies for resale, public authorities, miscellaneous main line, industrial, and total of all customers there, 17 lines.

A. Yes, but the difference—

Q. You don't have them numbered?

A. No. The different places of sale would be 20, because these industrial customers are each at a different location. There are nine of them down there. Instead of counting it as one it should be counted as nine.

Q. What I want to get at first is, at how many points does Colorado-Wyoming Gas Company sell gas from its line?

A. You mean sell or deliver?

Q. Sell or deliver.

Mr. McCreery: What year?

Mr. Lange: Well, say 1940.

The Witness: Your sale points and delivery points could vary and quite often they do because—take a town like Fort Collins, for instance, where you might make delivery at two or three points on their system. Whether they do or not, I couldn't tell you that and therefore couldn't answer the question because I am not familiar enough with the detailed mapping around those towns, but as general practice I do know—I think at Kansas City we have about four delivery points in the town and some in other places.

By Mr. Lange:

Q. But your company—or, rather, Colorado-Wyoming Gas Company, as set forth on Page 1, Exhibit 246, lists names of purchasers of gas from them, doesn't it?

A. Yes, sir.

Q. You first have the Cheyenne Light, Fuel and Power Company?

A. Yes, sir.

Q. Then you have five companies under Public Service Company of Colorado.

A. Yes, sir.

Q. Five particular sale and delivery points.

A. Yes, sir.

Q. To the Public Service Company of Colorado?

Mr. McCreery: Wait a minute. That isn't what it says. It says "five districts."

Mr. Lange: All right, we will read it just the way it is.

Q. The Public Service Company of Colorado is the purchasing company?

A. Yes, sir.

Q. And the deliveries to Public Service Company of Colorado are made at Fort Collins, Berthoud district, Boulder district, Brighton and Fort Lupton districts and the Denver fringe district?

A. Yes, sir.

Q. Then you make a sale to the Greeley Gas & Fuel Company?

A. Yes, sir.

Q. And you make one to the Highway Gas Company?

A. Yes, sir.

Q. And then under the group of public authorities you make sales at Fort Logan, Fort Warren, Denver Board of Water Commissioners, and the Federal Correctional Institution?

A. Yes, sir.

Q. Then you have what you term miscellaneous main line sales. There are none in 1940 as I understand it.

Mr. McCreery: Those are the right of way customers.

The Witness: None of those.

By Mr. Lange:

Q. You have nine industrial customers you served in 1940?

A. Yes, sir.

Mr. McCreery: They are listed on another page.

The Witness: You can find them under individual names on the second page.

By Mr. Lange:

Q. The way I figure that you have 17 customers, is that right? The Colorado-Wyoming Gas Company had 17 customers in 1940?

A. That is true, because of the grouping of the five districts under Colorado Public Service Company.

Q. And those 17 customers purchased all of the gas that Colorado-Wyoming Gas Company sold in 1940?

A. Yes, sir.

Q. And of those 17 customers, Public Service Company of Colorado was the largest resale customer, wasn't it? When I used the words "resale customers," I meant purchaser in terms of gas for resale.

A. Yes, sir, that is true.

Q. And the next largest resale customer or purchaser is the Cheyenne Light, Fuel & Power Company?

A. Yes, sir, they purchased about half as much as the Public Service Company of Colorado.

Q. And both the Public Service Company of Colorado and Cheyenne Light, Fuel & Power Company are affiliates of the Colorado-Wyoming Gas Company?

A. Yes, sir.

Q. What is the nature of that affiliation?

A. The Public Service Company of Colorado owns the Colorado-Wyoming Gas Company.

Mr. McCreery: Also the Cheyenne Light, Fuel & Power Company?

The Witness: Yes.

By Mr. Lange:

Q. And the Cheyenne Light, Fuel & Power Company distributes gas in Cheyenne, Wyoming?

A. Yes, sir.

Q. On your first page of Exhibit 246 you have total of all customers in 1940, 16,678.

A. Yes, sir.

Q. And it varies in numbers back through 1925?

A. Yes, sir.

Q. And also through the years 1925-1940. Do you indicate definitely when each of those were attached?

A. Not the exact dates but the years in which we first made sales.

Q. You do indicate when each of the 17 customers were attached?

A. Yes, and that is true also about the first year in which the customers appear on the first sheet.

Q. Now, then, going back to your main subject, I believe you stated that your version of going concern value was what a willing purchaser would pay to a willing seller, did you not?

A. For attached business, yes.

Q. For attached business?

A. Yes, sir.

Q. Is that what they pay or is that the basis of their consideration when they negotiate for the purchase of a plant?

A. That is not the only basis. That is only one of the considerations. Of course, they give a very detailed study to the physical property itself and the condition of its maintenance and all other items of that kind.

Q. In your particular definition of that concept it has been defined various ways, hasn't it?

A. It has been defined in many ways. I have just given what is usually accepted in transactions for the purchase and sale of property.

Q. What do you mean by "what is usually accepted"?

A. What I can get the insurance companies to allow me to include if I am trying to borrow some money on a bond issue or what I could get anybody to pay that was going to buy the property, or what I am willing to pay or the payment I would recommend if we were going to buy the property.

Q. All right. That particular version of it hasn't been the one that is spread over the law books with reference to rate cases, has it?

A. It has been put into many rate cases, yes, sir.

Q. But in what particular proceedings do you have that concept in mind? Have you any particular one in mind?

A. Yes, in the Cities Service gas case.

Q. Which one?

A. I will have to ask Mr. McCreery to give you that citation. I was in it off and on for five years.

Q. You mean the Kansas proceedings?

A. Yes, before the three-judge Federal court.

Mr. McCreery: It was in 1933 and 1934.

By Mr. Lange:

Q. Did you testify in the Wichita case?

A. Yes, I did.

Q. Did you have occasion to give any consideration to what others had thought of that concept during the course of your professional work?

A. Yes, I have. I have seen people trying to figure it out on the basis of cost in many other ways, going clear back to the old Gordon Metcalf concept concerning going value. I watched it with some amusement, it being the more inefficient you were the more it cost and the more it was worth, but I didn't agree with the theory.

Q. Did you agree with what they did in Galveston in the Galveston Electric case?

A. No, I didn't agree with a lot of things.

Q. What theory—strike that—do you know Mr. P. McDonald Biddison?

A. I do.

Q. Do you agree with his concept?

A. I don't know that I have ever heard Mr. Biddison put on going concern value. In the only cases I was associated with him he was testifying as to the value and condition of compressor stations, largely.

Q. You have never heard him give his version of what he considers going concern value to be?

A. Not that I know of, no, sir.

Q. Hasn't he done considerable work for the Cities Service group?

A. He has, but the only work I know of he has done for us was compressor station work on the physical property.

Q. You only had occasion to see what his method was with reference to reproduction costs new?

A. No, he was asked to determine the per cent condition.

Q. That was a part of the reproduction costs new appraisals?

A. It was a deduction from the reproduction costs new.

Q. He just determined the per cent condition and had nothing to do with the reproduction costs new appraisal?

A. No, sir, because I had done that myself.

Q. Did he testify in any proceeding involving reproduction costs new?

A. Yes, sir, he was in the Cities Service case in 1934.

Q. Didn't he in the case of his testimony confirm your findings on reproduction costs new?

A. Not that I know of. I don't think he had anything to do with that.

Q. He didn't say that he had examined it and approved the method followed?

A. He had examined the property for the purpose of determining the per cent condition only.

Q. And in connection with that, presented the going concern value?

A. I did.

Q. You did?

A. Yes, sir.

Q. What version did you have of it at that time, the same as this?

A. I had the same version I now have, but in that particular proceeding, having been familiar with the way the money was expended to attach the business, I went into the cost of it as well.

Q. You did?

A. Yes.

Q. You still say you don't know on what theory Mr. P. McDonald Biddison computed his going concern value estimates in any of the Cities Service cases that he has testified in?

A. I don't think—as far as I know, he hasn't testified to that in any of the Cities Service cases.

Q. He has not?

A. Not unless it was the Arkansas Natural Gas case.

Q. What position did he take in that?

A. I don't know. I wasn't in the Texarkana case.

Q. You have never seen his study on going concern value?

A. No, sir.

Q. He has done considerable work for the Cities Service groups, hasn't he?

A. He has and as I say, the principal part of it was the type of work I have just described to you, the determination of per cent condition.

Q. You said that anybody that considers that basis—or, rather, that basis of going concern value out-of-pocket costs in the early days was following the wrong course?

A. He might be right.

Q. He might be right?

A. He might be right if it just so happened that he could, in addition, prove those expenditures had been very efficiently made and that the value was as much as the cost or was related to the cost, but as I say, cost and value are only synonymous by accident.

Q. Supposing he says he utterly disregarded whatever the company may have spent in the early days for these so-called intangibles but that if the company were reconstructed now it would in fact have to be spent. What about that version?

A. If he can determine what they have to spend to reproduce it, I think it would be a pretty costly estimate. A good estimate of the physical property—

Q. He would go back to the estimating method of determining what the out-of-pocket cost probably might have been or would be at the present time?

A. Yes. In the Cities Service estimate there is plenty of 16- and 18-inch pipe for which the original payment was $86 a ton. We can buy it for less now and if I used it I would use the reproduction cost rather than the original cost.

Q. If price levels were high you would use what system?

A. As of the time if they were high or low, I would use those price levels of that time.

Q. If your price levels were high, what would you use with reference to determining the cost of the plant?

A. I would use the levels in effect as of the time I was making the determination.

Q. At the time you were making the determination?

A. Yes, oh, yes.

Q. If they were low you would pursue the same method?
A. I would pursue the same method always.

Mr. McCreery: That is, in a reproduction costs new study.

By Mr. Lange:

Q. In your entire experience as a valuation engineer, of course this concept of going concern value has fitted right into the reproduction costs new?
A. Yes, sir.
Q. Very definitely?
A. Yes, sir.
Q. Did you ever know of it having been used in connection with the original cost of the property?
A. Yes, that is what the Wisconsin Commission tried to do until the United States Supreme Court threw it out.
Q. What did it do with reference to the determination of going concern value to determine past deficits?
A. They threw it out.
Q. They threw it out?
A. Yes, very, and very properly so, I think.
If I had been foolish and spent a lot of money for something—
Q. So that if a company has had past deficits, that can't be used as a measure?
A. No.
Q. But it would still have going concern value?
A. It would if it had the customers attached and the opportunity to make sales and had an organization that knew how to go at it and do it.
Q. Although from its inception up to the time of this computation it would show a series of deficits?
A. Perfectly true. When all of the major companies went into the Cities Service Company they were in the hands of receivers.
Q. That going concern value would in your opinion have an added value, as you put it?
A. It would have a value, yes, because we didn't have to go looking for the customers, as we had the customers. All we had to look for was some gas.
Q. Under your version as you use the word "value" in going concern value, that is there regardless of cost?

A. Not regardless of cost, but because I know I can't create it without making expenditures, but not identical with cost.

Q. You say that expenditures are necessary to create it?

A. Most assuredly.

Q. You were just comparing it with the cuff links that you say were given to you, that they were of no expense to you whatsoever and therefore had no relation to cost?

A. Certainly, and when I come to determine the value of the cuff links I would go to a store and find what the duplicates to them would cost.

Q. But they didn't cost you anything.

A. But they are not going to take them away from me for nothing.

Q. You would go down and find out what they would cost?

A. That is what I would do.

Q. And this would give you the cost? This jeweler to whom you went would give you his opinion as to what those cuff links would cost?

A. If he were honest, yes.

Q. We are presuming that he would be honest.

Q. Can you tell me who has ever been able to find a measure of going concern value?

A. Everybody that has ever bought and sold has found a measurement satisfactory to them.

Q. They made their own, didn't they?

A. They did.

Q. Can you point to me a single instance where anybody has been able to determine a measure upon which to fix going concern value?

A. No, I have never found two valuation engineers that agreed upon the value of physical property, either, or any two accountants that ever agreed upon the original cost of a property. You have to use some judgment. There isn't any rule by which you can put an office boy in business and make him a success.

Q. That is right. You are definitely of the opinion that the phrase, "going concern value" as used by you doesn't necessarily contemplate any element of cost?

A. If I understand your question, I want to make that plain. It does contemplate an element of cost that would

be involved if that going concern value wasn't there and if you had to create it after you bought the physical property. It would cost you money to do it and therefore you will pay something for it when it is attached.

Q. In other words, although it just appeared on the scene you still create an element of cost there for it?

A. Is there anything in the sales to indicate that somebody waved a wand? These sales—both the number of customers and sales per customer have gone up ever since the start of it.

Q. We are now going back to Exhibit No. 246?

A. Yes.

Q. All right, I was just going back to that myself.

I am particularly concerned, very much so, about where you figured this 16,678 customers in the year 1940 as being part of and constituting your basis of going concern value in the Colorado-Wyoming Gas Company.

A. Because they are the customers that have been educated to the use of natural gas and who have been persuaded to buy and install natural gas furnaces and all other types of natural gas equipment down through the years and who are now supplied by us.

Q. And just because they happen to be so supplied by Colorado-Wyoming Gas Company, they constitute this additional element of value, as you call it, to the Colorado-Wyoming Gas Company?

A. Yes, sir. I have seen plenty of pipe lines laid to large towns where they were unable to create that demand and both the company and the security holders suffered thereby.

Q. And when you go to the first one, the Cheyenne Light, Fuel & Power Company, it being on Page 1, Exhibit 246, you find that is a distributing company?

A. Yes, sir.

Q. It operates a natural gas distribution plant?

A. Yes, sir.

Q. You have that company listed on Page 1, Exhibit 246, as having 4,777 customers attached in 1940.

A. Yes, sir.

Q. If you were employed or retained by Cheyenne Light, Fuel & Power Company to make a study of the value of the properties of Cheyenne Light, Fuel & Power Company

as of this time, what added value would you attach to Cheyenne Light, Fuel & Power Company for these 4,777 customers?

A. I would have to make a study of that before I could make a statement on it.

Q. You have it included as part of your basic value—basic part of this $175,000 that is going into Colorado-Wyoming Gas Company?

A. Yes, sir, and I will tell you the reason why it is in there in just a second.

Q. At this time I want you to tell me what going concern value you would set up for the Cheyenne Light, Fuel & Power Company in 1940 for those 4,777 customers.

A. I wouldn't want to do that now.

Q. How do you figure these 4,777 customers enter into your calculation here?

A. I will tell you in just a second.

Q. All right.

A. In 1926 those 1824 customers in Cheyenne used roughly about 28,000 feet of gas per customer; in 1940, 4,777 customers used roughly about 100,000 feet per customer. There has been a lot of educational work done in the meantime. Not only are there more customers but better customers and that is something that takes a long time to build up. It can't be done over night for two reasons;

One, your natural gas plant produces gas that has a large number of heat units than artificial gas and the first thing you have happen will be your sales per customer go down until you can get those customers to start using gas for other reasons. That takes time for two reasons;

One, to get them educated to want it; second, their financial condition may make them pick out the time when they will spend the money to put in a furnace. Sometimes it is a year, sometimes it is two years, and sometimes it is three years.

Q. Cheyenne Light, Fuel & Power Company is the one I am talking about. They would have to do all of that to get the going concern value you would be setting up for them in 1940?

A. That is true.

Q. For these 4,777 customers?

A. Yes, sir.

Q. You would be setting up a going concern value estimate for them?

A. Yes, sir.

Q. Say they were in a rate case—

A. Yes, sir.

Q. —these same 4,777 customers—

A. Yes, sir.

Q. —and you would come down to the Public Service Company of Colorado and they were in a rate proceeding. You would get for the Fort Collins district 3266 customers in 1940 and set up a going concern value for those 3266 customers for the Public Service Company of Colorado, wouldn't you?

A. Yes, sir.

Q. It would be set up for them to include in their valuation of property in that company?

A. That is true.

Q. That same 3266 customers you have here?

A. Yes, sir.

Q. In the same fashion you would proceed for the other distribution points on the Public Service Company of Colorado's system; that is, 3,324, 473 and 2,193 customers in 1940?

A. Yes, sir.

Q. They are the same ones you have set up on this exhibit?

A. Oh, yes.

Q. Then if you would make an appraisal and a going concern cost estimate for the Greeley Gas & Fuel Company you would determine what the going concern value would be of that company in a rate proceeding?

A. No, each one of them in turn.

Q. And you would determine the value of attached customers in 1940 as set up on Exhibit 246?

A. That is true.

Q. You would have all these distribution companies that distribute gas and have the number of customers attached as you have on Page 1 of Exhibit 246? Each of them would be in a separate rate proceeding and in each of them you would set up a going concern estimate for these attached customers, wouldn't you?

A. Yes, sir.

Q. You would believe they would be entitled to have going concern value estimated as an additional item of value as you termed in their particular proceedings?

A. I think the chain stores have a going concern value and probably the Pillsbury Flour Company which sells them flour has one, too.

Q. What I am particularly concerned about is where you have the estimate of going concern value here of Colorado-Wyoming Gas Company, inasmuch as you are setting up $175,000 that is predicated on the 16,678 customers in 1940.

A. And the sales to them.

Q. That is right. At the same time co-existing with the present rate proceeding here, there were rate proceedings going on, separate ones involving each of these named distributing companies, in that instance you would in each of those proceedings set up an estimate of going concern value based upon these same customers?

A. Yes, sir.

Q. There would be a slight duplication there, wouldn't there?

A. No.

Q. None at all?

A. No, none at all, any more than there would be a duplication between your retail distributor of Ford cars here and Mr. Ford's plant. If somebody in town is selling three or four thousand Ford cars a year he has a business that is profitable and if he has built it up over a long period of time it has a going concern value, but it is no indication of Mr. Ford's plant.

Q. I don't think Mr. Ford's plant has graduated to the public service class.

A. No, I don't think it has but I would have to try to buy it from him for the physical value.

Q. Are Mr. Ford's properties being operated as a public service company?

A. No, it is not, but I can't see that there is a new set of rules and new definition dependent upon whether you are or are not in the public utility business. I know that has been attempted a lot but that is the thing I object to.

Q. All right, I am just concerned here about this possi-

bility of slight duplication, however, since you say there isn't any duplication, I will carry it on a little further.

Supposing you were valuing the properties of a transmission company that was selling its gas to one customer, the Colorado-Wyoming Gas Company, it being the sole customer, and you were asked to prepare a going concern value estimate for that X company that in turn sells its gas to the Colorado-Wyoming Gas Company who in turn sells to all of the 16,678 customers. That X company would be entitled, I take it, to $175,000 going concern value?

A. I don't know whether it would or not because it might have an operating expense that wouldn't justify its existence at all.

Q. Well, say it doesn't, say it is in fine shape just like Colorado-Wyoming Gas Company, as you say it is, and has a splendid financial condition and it has an ample supply of gas, but it has these valuable attached customers totaling 16,678.

A. Of course it would have, and so has the owner of the lease that furnishes the gas to that first pipe line.

Q. But we are not going beyond X. We are carrying your illustration to X. What is the going concern value of X company?

A. I couldn't tell you without making an investigation of it.

Q. Although these are the total customers to whom X company finally sells its gas?

A. I would have to make an investigation of that before I would want to pass any judgment on it.

Q. What would be the basis of the going concern value, these attached customers?

A. Those attached customers, its cost of gas, its operating costs, and a half a dozen other things that would enter into whether or not it would have an efficient operating organization.

If, for instance, they didn't have an efficient organization, their operating costs were too high, the going concern value would be less; if it was efficient, it would be higher, because of that operating expense.

Q. All right. We are assuming it has an efficient organization, an organization as efficient as Colorado-Wyoming Gas Company; that its financial condition is the same, and

it has the same prospect with reference to obtaining its gas supply and all of those factors being equal, but it so happens Colorado-Wyoming Gas Company is its sole customer, this same Colorado-Wyoming Gas Company with all of these sales and as you say, customers attached. What is the going concern value of that X company?

A. I couldn't tell you. If it has a contract with Colorado-Wyoming Gas Company and has six months to run and Colorado-Wyoming Gas Company is already making a contract with somebody else, it would be very small; if it had a 40-year contract with Colorado-Wyoming Gas Company and a 40-year supply of gas, it would be very different. I can't answer the questions regarding a company which I know nothing of.

Q. Supposing all of the factors, all of the financial situations, its operating conditions were identical with Colorado-Wyoming Gas Company, then what is X company's going concern value in that situation?

A. If its physical property, operating conditions, revenues, and its expectation of continuity of sales were the same, it would be the same.

Q. In other words, X company would also have $175,000 going concern value?

A. Yes, sir. If you have two eggs just alike, you are foolish if you pay more for one of the eggs than you pay for the other.

Q. I am slightly concerned about this slight duplication. X company would have the same going concern value as Colorado-Wyoming Gas Company?

A. Yes, but the X company to which you refer as Colorado-Wyoming Gas Company has an entirely different situation and that is why I don't want to pass judgment on it. I am not trying to dodge your question, but I am trying to keep from passing judgment on nothing.

Q. I believe you predicated that on the assumption all factors were the same with Colorado-Wyoming Gas Company and X company, did you not?

A. If they were, the value would be the same.

Mr. McCreery: Of course, they couldn't be the same as a matter of fact.

Mr. Lange: I am trying to determine from this witness what the going concern value would be and he said $175,000.

Q. Isn't that correct, Mr. Hamilton?

Mr. McCreery: I want to make an objection. You can't have identical factors. Here is a company with several customers, a theoretic company with several customers, and then he says "Assuming it couldn't be done."

Mr. Lange: I think there are a number of substitute costs that weren't at all pertinent in determining how many duplications that had taken place in determining what is alleged to be going concern value.

The Trial Examiner: Well, Mr. Lange, it seems—

The Witness: The conditions wouldn't be the same if you please, for the simple reason you couldn't get an insurance company to do business with only one insurance policy.

Mr. Lange: That is true, but what I am getting at here, Mr. Examiner, is—

The Witness: You have in this case several customers. It isn't within the realms of reasonable assumption that you are going to lose them all on one day. If you confine yourself to one customer you might lose that one customer on one day.

Mr. Lange: What I am concerned about is to determine how the Colorado-Wyoming Gas Company which sells gas to these three or four distributing companies and doesn't itself own those attachments or customers has a going concern value attached to its business.

The Trial Examiner: He has answered that, Mr. Lange.

Mr. Lange: I want to know how far he would go down the line in using those same attached customers.

The Trial Examiner: The difficulty is when you say "in X company the conditions are the same as in Colorado-Wyoming Gas Company"—you don't have the situation then you have in mind. The situation you have in mind, as I understand it, is when X company is the pipe line that comes up and only sells gas to Colorado-Wyoming Gas Company?

Mr. Lange: That is right.

The Trial Examiner: The conditions are not the same. The witness says that he cannot respond.

Mr. Lange: It has only these attached customers—Colorado-Wyoming Gas Company has only these attached customers. No new elements are in the picture at all.

The Witness: Just this one element which is very important in that one customer has all of the business of this X company tied up in one bundle as being owned by somebody else.

By Mr. Lange:

Q. And in this particular situation the great bulk of all of these resales are to affiliated companies, I believe you stated?

A. Yes, sir, and I don't think they are going to run away from us very fast.

Q. That is right. You are definitely of the opinion that these distributing companies that in turn sell gas to these attached customers set forth in 1940 are customers of each of the distributing companies?

A. That is true.

Q. Each of the distributing companies would in turn have the right to set up a going concern value for that business attached?

A. They have spent a lot of money getting it, too.

Q. For the same customers?

A. Yes, sir, the same customers coupled with sales. You could have the customers connected but if they wouldn't buy any gas you wouldn't care much for them.

Q. And these straight line industrial customers that you have on your Page 1, Exhibit 246—

Mr. McCreery: What did you call them?

Mr. Lange: The main line industrial customers.

The Witness: The main line industrial customers?

Mr. Lange: Yes.

The Witness: Those took a lot of time to get, too.

By Mr. Lange:

Q. They were pretty difficult to get?

A. Well, if you ever want to sit in on a negotiation with one of the engineers of one of these big plants and try to sell him his fuel supply, I think you would find that a very mild statement of the picture.

Q. I agree with you. That was the very thing I was wondering. I was wondering what any particular importance a company may attach to having nine valuable industrial customers like Colorado-Wyoming Gas Company.

A. It has a value that cuts both ways because they are better load factors than are your house heating customers attached to the distribution system, and they give you a base load which can furnish you income first; second, it will furnish you a base load from which you can pick up the variations in the domestic customer load and continue to render the domestic customer service because these people are equipped to cut off temporarily and use other forms of fuel.

In other words, let me add this: An industrial customer with a cut-off clause is a more valuable customer than a 100 per cent load factor to us because he will get off when you need the gas for other purposes.

Q. Did you tell me, or have you stated in the record how you arrived at your measure of going concern value in this particular case?

A. It is a judgment figure entirely.

Q. You just reached out and got $175,000?

A. Exactly as a horse-trader looks at a horse and decides what it is worth. He doesn't take a scratch pad and put down his nose for something and his ears for something and his hoofs for something else, at least, I have never seen anybody do it.

Q. And in that fashion you arrived at this $175,000?

A. Yes.

The Trial Examiner: You don't employ any mathematical formula, Mr. Hamilton, to arrive at your going concern value?

The Witness: No, sir, I do not. I have lots of times when the records were available, checked what it cost them to get it, but I still made up my own mind as to whether it was worth what it cost when finished. I do know in

distributing companies what it costs to add sales in terms of Mcf.

By Mr. Lange:

Q. You collaborated with Mr. Willard in the preparation of Exhibit No. 111, didn't you, Mr. Hamilton?

A. No, sir.

Q. You didn't? In that case I must have misread it where Mr. Willard stated that he is an employe and associate of F. C. Hamilton, Consulting Engineer, for Electric Advisers, Inc.

A. That is true.

Q. Then you didn't collaborated with your associate at all in the preparation of that exhibit?

A. No, sir, I did not. Mr. Willard has been with me a great many years and I think he can do it without supervision.

Q. I just wanted to know if you were in any manner familiar with what he included in his Exhibit No. 111.

A. No, sir, I don't believe I have ever seen it.

Q. You don't believe you have ever seen it?

A. No, sir.

Q. It would have no bearing at all on what you would do with reference to determining going concern value as an added element of value as you view it?

A. No, sir.

Mr. Lange: I notice that in his original exhibit 111 he has the present value of Colorado-Wyoming Gas Company and I have been trying to find somewhere in it where he has any reference to any such appraisal as exclusive of going concern value.

Mr. McCreery: Obviously, the exhibit speaks for itself. It is dealing with the physical properties alone and that is all it undertakes to deal with. This witness has no knowledge or concern with it and the exhibit itself indicates that it is dealing only with the physical property.

Mr. Lange: I think I agree with you, Mr. McCreery, that the exhibit very definitely speaks for itself. The only thing I wanted to know was whether by accident or otherwise I overlooked any such exception in it. I wanted to be sure whether Mr. Hamilton knew anything about it.

The Witness: No, sir, I do not. I haven't seen it.

By Mr. Lange:

Q. You have been pretty familiar with the preparation of valuation estimates in rate proceedings?

A. Yes, sir.

Q. Ordinarily the valuation engineer would, if he pursues the method or if his organization is going concern value minded. I have never seen one that didn't have the estimate in it, have you?

A. It is according to how you set up your summaries. Sometimes at the bottom of your totals of the physical property values you add the going concern value. Sometimes it is presented by a different witness and presented in two separate exhibits.

Q. Where it is presented by two separate exhibits it has a reference exclusive of going concern value; is that the way Mr. Biddison frequently puts his in?

A. I never saw Mr. Biddison present a going concern value.

Mr. McCreery: Just to clear the record at this point, the testimony given at the time made it very clear exactly as to what the purpose and the character of Exhibit No. 111 was, if you will make reference to the transcript.

Mr. Lange: I think, Mr. McCreery, we can settle that right now at Page 7, Exhibit 111, where Mr. Willard says here in the explanatory statement: "This exhibit sets forth, for the purposes of this case, the value of the property of the Colorado-Wyoming Gas Company."

Mr. McCreery: Then he stated to you on cross examination that that was the value of the physical property he was considering.

Mr. Lange: I don't recall, Mr. McCreery, that there was ever anything referred to by Mr. Willard as being less than the value of the company's property, but I wanted to know from Mr. Hamilton as to whether he knew anything about it.

The Witness: No, I do not, not a thing.

By Mr. Lange:

Q. Mr. Willard states in his explanatory statement in Exhibit No. 111: "This exhibit sets forth, for the purpose of this case, the value of the property of the Colorado-Wyoming Gas Company."

A. I think if Mr. Willard had attempted to put going concern value in there, he would have made the phrase read: "the property and business of the company."

Q. The property and business of the company?

A. Yes, sir.

Q. Is that something in addition to value? What does the word "value" in your opinion mean if it is used as Mr. Willard stated, "This represents the value of the property of this company?

A. The value of the physical property of the company.

Q. You would read the word "physical" into that?

A. I would in that phraseology, yes.

Q. You would?

A. Yes. Present value by most people is assumed to be the cost of reproducing or original cost less the accrued depreciation of the physical property. That is the reason the word "present" is in there, that they have deducted depreciation, and of course that is a deduction from physical property alone."

Q. That is very true, Mr. Hamilton, and that is why I am referring to Mr. Willard's explanatory statement, because he doesn't use the word "present" at all. He doesn't modify the word "value" at all. It is the value of the property.

A. You ought to go after Mr. Willard if you don't like his phraseology, not me.

Q. I was wondering about that when this afterthought of going concern value got into the picture.

A. I don't think it is an afterthought. It has never been in any valuations I have presented.

Q. You didn't present this valuation?

A. No, but my organization did.

Q. That is why I was wondering if you weren't familiar with what was being done. You said you didn't know what was in Exhibit No. 111.

A. It was for the simple reason I happened to be engaged in a Cities Service case and have been continuously engaged for a long time. I have men perfectly equipped to inven-

tory and determine the physical property. Mr. Willard was sent out here to do the job—

Q. You assumed he would complete the job, Mr. Hamilton?

A. I didn't assume he would because he hasn't had the experience I have had in the purchase and sale of property.

Q. He wouldn't be able to make an estimate of attached customers?

A. I think he would be able to make an estimate but I would prefer my own to his.

Q. You didn't have anything to do with the getting up of the inventory of these properties either?

A. No, sir. That was done by others of my men.

Q. Now, these charts you have attached, graphs attached here to your Exhibit 246, do you have them before you?

A. Yes, sir.

Q. I noticed that the total customers served, when you used the words "total customers served," you again had direct reference to that 16,678 customers, the figure that appears on Page 1 of the exhibit?

A. That is true.

Q. You are not confining yourself to the 17 customers that you sell directly for resale?

A. No, sir. The second chart excludes the ones we sell directly.

Q. The main line sales?

A. Yes, sir.

Q. The second chart just confines itself to resale customers but where you use the term "total customers served" on that second chart, you also have in mind that number of customers as set forth on Page 1, Exhibit 246?

A. That portion of them to which gas is sold for resale.

Q. That is right. Now, on Page 1, Exhibit 246, do you include in this 16,678 customers in 1940 those under what is designated as public authorities?

A. Yes, sir.

Q. Fort Logan and Fort Warren?

A. Yes, sir.

Q. Do you know the manner in which gas is handled, or, rather, how gas is distributed at Fort Logan and Fort Warren?

A. No, sir, I do not. I am not familiar with that distribution up there.

Q. Colorado-Wyoming Gas Company sells its gas at these two points to the United States War Department, doesn't it?

A. Yes, sir.

Q. At Fort Logan and Fort Warren?

A. Yes, sir.

Q. And these 189 attached customers in 1940 and 72 at Fort Logan, you don't know anything about them?

A. No, sir.

Q. You don't know of what they consist?

A. No, sir.

Q. They are all in the Government Reservation? You don't know anything about them?

A. No, I do not.

Q. Now, this Federal Correctional Institution that you have under public authorities, there you have three attachments in 1940. Do you mean they have three places of delivery?

A. Yes, sir, I assume that is true.

Q. To the one institution?

A. I don't know whether it is to the one institution or not. I assume it is delivered to two or three buildings at one institution, but I am not sure of that.

Q. It is just one customer there, the Federal Correctional Institution?

A. Yes, sir.

Q. Did you state there was no miscellaneous main line sales in 1940?

A. That is true.

Q. I notice in 1939 you had fifteen of them. What became of those?

A. My understanding is that they were right of way customers and we finally got them out.

Q. And they are now being served by Public Service Company of Colorado?

A. I couldn't tell you.

Q. You wouldn't know?

A. No, sir.

Q. These figures that you have set up in this exhibit, were they prepared by someone on the Colorado-Wyoming Gas Company's accounting staff?

A. With the assistance of Mr. Willard.
Q. And given to you?
A. Yes, sir.
Q. For use in your exhibit?
A. Yes, sir.

Mr. Lange: Could we have a few minutes recess, Mr. Examiner?

The Trial Examiner: Very well. We will take a five-minute recess.

(At this point a short recess was taken, after which proceedings were resumed as follows:)

The Trial Examiner: The hearing will be in order.

By Mr. Lange:

Q. Mr. Hamilton, going back again to your concept of going concern value, I believe you stated that you contemplated what a willing purchaser would pay a willing seller. Is that right?
A. That is true.
Q. Relating that again to the Colorado-Wyoming Gas Company upon which you have estimated $175,000, going concern value, the buyer would be pretty much interested in the company's operations generally you stated?
A. Yes, sir.
Q. And it would be very much concerned, too, I presume, with reference to the adequacy of the company's gas supply?
A. That is true.
Q. Particularly if as you say he would be willing to pay an additional sum of $175,000 going concern value, so that element has been taken into consideration by you?
A. That has been taken into consideration by me, yes, sir.
Q. And the adequacy of a company's gas supply is a very important factor that you think is necessary to take into consideration in determining going concern value?
A. Yes, if their gas is coming from a field that was on its last legs, it would be something else again.
Q. And that particular item was given consideration by you in estimating this $175,000?

A. Yes, sir.

Q. And the fact, too, that this company's—speaking of Colorado-Wyoming Gas Company—markets as they are presently and in the past, have been an important part of your consideration?

A. Yes, sir.

Q. When I say "markets," I mean the customers to whom they expect to sell and are selling gas.

A. That is true.

Q. Now, then, in your computation of going concern value, or your estimate, you spoke of the fact that having as many customers attached as this company has, the Colorado-Wyoming Gas Company, was the basis of the preparation of this chart and was the basis of your estimate of going concern value?

A. The number of customers plus the sales per customer.

Q. And that also is contemplated as set forth in your exhibit, Page 2, the sales made?

A. Yes.

Q. The customer alone without volume of sales wouldn't mean anything?

A. No, it wouldn't. In other words, if this company were just taking gas for a distributing company that for years had been selling artificial gas, it wouldn't have nearly the going concern value because I would know from past experience that it would take several years, usually about four or five years, to get the volume of sales per customer up to where it was. At first it declines when you put in the natural gas.

Q. And this volume of sales, of course, dollars paid for the Mcf. that these customers purchased; that is, every customer that purchases gas has to pay in dollars for it?

A. That is true.

Q. And you have some 16,678 customers to whom this volume of sales is attributable?

A. That is true.

Q. You also stated that these distributing companies had probably spent considerable money in attaching customers.

A. I know as a matter of fact that they have.

Q. Now, these customers that are attached and are paying the dollars for this volume of gas would be affected by any cost that the selling company would have? In other

words, if you add going concern value to this company's plant account, it would ultimately reflect itself in what these customers would pay for this volume of gas, wouldn't it?

A. It would in fixing a fair rate. It wouldn't reflect it if the rates thereby became so high they wouldn't buy the gas, because they always have that choice and the very fact that their volume per customer has gone up has indicated to me the rates must be fairly satisfactory to the customers or they wouldn't continually increase their sales per customer.

Q. Going back to your first answer, you stated that this added element of value if added to the Colorado-Wyoming Gas Company's value of the plant, would ultimately find itself reflected in what these customers would have to pay for the gas?

A. It would in fixing a rate, yes, sir.

Q. Then these customers who have become attached are eventually going to have to pay for the value they have added?

A. No, they are just going to have to pay for the gas.

Q. That is true; that is all they are going to pay for; however, it is a matter of how much they are going to pay for.

A. You are going back to the old theory I have been faced with hundreds and hundreds of times, that the customer is going to take a dollar and buy some gas with it and in addition he is going to acquire an interest in the plant. That isn't true.

Q. Oh, no, I didn't say anything about the acquiring of interest in the plant.

A. If he doesn't, then all he pays for is gas and not the going concern value.

Q. But the fact that he happens to be a customer, automatically contributes to the building up of this value which he ultimately will have to pay for.

A. It is just exactly as if you doubled the length of the line through which you had to secure the gas supply. It would be a higher physical property value on which you would have to pay.

Q. You are making that kind of a comparison. He would have nothing to do with the extent of the doubling of the length of the line—

A. He doesn't have anything to do with the creating of this going concern value.

Q. He doesn't?

A. No, sir.

Q. It just happens automatically? Of course, he and a group of others are customers if that value is brought into being?

A. You would have a hard time trying to sell it to our salesmen that it happens automatically.

Q. The fact that he happens to be a customer, even if you had the best salesmen, if he didn't ultimately become a customer he wouldn't contribute to this fixture at all?

A. Not at all. If he didn't buy any gas service, he wouldn't be of interest or value to us.

Q. The fact that he buys gas and pays dollars for gas creates this customer group that creates this going concern value?

A. Certainly, just as the sale of Gillette safety razors attaches customers.

Q. As the Gillette safety razor company does?

A. No. My conception of the company doesn't change just because some new law has been passed that puts them under a regulatory body.

Q. Gillette safety razors are not sold under a regulated price, are they?

A. No, but they are sold under competitive conditions and so is gas and it is very direct and active competition.

Q. I have just one example in going back to this illustration we had about the X company and Colorado-Wyoming Gas Company and these various distributing companies in fixing going concern values.

Supose you had a merger of this X company and Colorado-Wyoming Gas Company and the distributing companies. What would become of that composite going concern value?

A. It would be a value for the whole system. Of course the consolidated system with much more property would have a higher going concern value than when you split it up into composite parts.

Q. You would have the going concern value of X company and of Colorado-Wyoming Gas Company and of each

of these distributing companies and get a sum total of your going concern value?

A. You would, yes, sir.

Q. And even with that merger you would still have 16,678 customers?

A. That is true.

Q. And the amount of sales shown on Sheet 2?

A. That is right. I don't mean to be facetious but it is the sales and the customers. As I said, the average gas customer usually uses 35,000 cubic feet of gas per year. When you compute that into natural gas that immediately goes down and those sales have to be built up so it is the relation of the sales and the customers both.

Q. And it contemplates the prospective earning power of that company?

A. Yes, sir, but it is not based upon earning power.

Q. It is not based upon earning power?

A. No.

Q. Well, how could you contemplate it if it wasn't based upon it?

A. It contemplates a possibility of earnings but the fact that this company might be earning 100 per cent a year and is under regulation wouldn't cause me to multiply the going concern value, if it were only earning ten per cent a year, by 10.

Q. In other words, if you have a willing purchaser and a willing seller—I believe you stated a while ago that if there was a good market and you were going to have ample sales, you figured there was a going concern value?

A. Yes, sir, I did, although they were losing money as of the time.

Q. That is right, but this willing buyer would expect to make money out of it in the future?

A. He would.

Q. And because he thinks there is a good market there, he is willing to pay this added amount, depending upon making some money out of those customers he would have in the future?

A. Yes, he would pay more for it than he would for the same physical property without any customers attached?

Mr. Lange: I believe that is all for the present.

The Trial Examiner: Mr. Hamilton, at the time you fixed the going concern value of the Colorado-Wyoming Gas Company I presume that date was sometime during the year 1939 or 1940?

The Witness: During 1940.

The Trial Examiner: And during that time they were earning a profit?

The Witness: Yes, sir, they were.

The Trial Examiner: Let's assume for the moment that the company was of the kind that you have stated, which was losing money at the time this going concern value was fixed. Would you then have fixed the same going concern value?

The Witness: No, I would not have done that because there would have been expenses in prospect to get it in shape. It wouldn't have been as high but it would have been more than I would have had had I not had the customers attached. In other words, if I have to go ahead and create a portion of that going concern value, I would want to deduct from this figure what I thought it would cost me to do it.

The Trial Examiner: You do not relate the earnings of the company to the going concern value?

The Witness: No, sir, because they might be so high I could not see any prospect where they were going to be reduced or they might be low, because as in the case I cited the company was not able to go the distance we had to go to get the gas. We knew we could.

Mr. Lange: I have some more questions.

Q. With reference to the factor of adequate service that you took into consideration, adequate reserves of gas you took into consideration in arriving at this estimate of going concern value, what period of time did you have in contemplation a willing purchaser would inquire of you as to Colorado-Wyoming Gas Company's adequacy of gas for future use?

A. I would assume he would inform himself on that adequacy before he entered into the negotiations and as for myself I have been familiar with the Amarillo field in a general way ever since the first wells were drilled down there. I have been connected with companies such as the Cities Service Gas Company and the line that was built down there to take gas for them, and also with the Natural Gas Pipeline Company of America and its supplies. I have had presented to me repeated geological reports from time to time to accompany my valuations when we were endeavoring to float issues.

Q. You are informed as to the adequacy of reserves?

A. I think there is a lot of gas there and will be for quite a few years ahead.

Q. Gas will be available to the Colorado-Wyoming Gas Company?

A. Yes, sir, I assume so.

(Vol. 84, pp. 12461-12514.)

Company Exhibit 117 (Appendix this Record).

---

(2) THE COMPANY METHOD OF ALLOCATION.

H. D. HANCOCK (whose qualifications and experience are abstracted elsewhere herein) testified on the subject of Allocation.

I. ALL SALES FOR RESALE.

(a). *General Explanation of Exhibit 117.*

The witness presented Exhibit 117 (see Appendix) which he stated "embraces a statement pertaining to the plant and property applicable to all sales for resale for the years 1939 to 1945, inclusive, and the volume of sales and revenue, gross and net, of all sales for resale."

As contained in his explanatory statement, he testified:

"Exhibit No. 117 shows the earnings which reasonably may be expected to accrue to the company during the period ending with the year 1945, from all 'sales for resale.'

"The total figures shown on Exhibit No. 115 covering volume of sales in M. c. f. cost of purchased gas, revenue from sales, operation and maintenance expense, and general and Federal income taxes, have been apportioned between such 'sales for resale' and all other sales. Such allocation has been projected for each year of the period ending in 1945.

"The calculated total depreciated investment of the company presently devoted to service of the 'sales for resale' customers, the primary obligation and business of the company was determined, in general, by applying the actual peak day demand of such customers to the total plant capacity of the company. The result is the investment used for total sales for resale."

(Vol. 27, pp. 3799, 3800.)

The witness testified on cross-examination that the basic figures contained in Exhibit 117 were taken from Exhibit 115 (see Appendix), and Exhibit 115 reflects, for the year 1939, the actual book figures with reference to gas sales, revenues and expenses of Colorado-Wyoming Company, and for 1940, ten months actual and two months estimated, and for the succeeding years shown in the exhibit, the items were estimated. (Vol. 27, pp. 3806, 3801.)

He was then asked:

"Q. But the present Exhibit 117, in the earnings statement that is attached to that exhibit does not reflect any actual book figures at all, even for 1939?

"A. Only to the extent that the sales for resale in Mcf. and the gross earnings from operation derived from sales for resale and the various items of expense, as for example, purchased gas expense, which would come directly from the books, is representing that portion of purchased gas expense corresponding to the previously mention sales for resale.

* * * * *

"Q. Under that classification. For instance, under 'Purchased Gas Expense' you have an item of $330,410.

"A. That item corresponds to the amount of gas purchased for sale for resale at the applicable contract rates.

"Q. But this item of $330,410 under 'Purchased Gas Expense' is an allocated amount computed by you from a larger total appearing on the company's books?

"*The Trial Examiner:* Under the same classification?

"*Mr Lange:* Yes.

"*The Witness:* I wouldn't call that an allocated amount except to the extent that minor component parts of that amount such as 'Company used gas' and 'Cost of lost and unaccounted-for gas' has been apportioned. The majority of the item is directly derivable from the books of the company, without any process of apportionment or allocation."

(Vol. 27, pp. 3801, 3802.)

The witness explained that the purpose of the calculated total investment shown in Exhibit 117 was to determine what amount of the investment of the Company's property was utilized for the sale of gas for resale and that such calculation shows that that portion of the entire investment applicable to industrial and public authorities is $106,952, depreciated to $90,551. The witness explained that this was true for the reason that the system was built to supply the customers to whom gas is sold for resale, except for small branches to industrial customers who use gas off peak times and are cut off at times of peak-day demands, this use being purely incidental to the primary use of the line.

(Vol. 27, pp. 3813-3815.)

(b) *Allocation of Plant and Investment to Sales for Resale.*

The witness was questioned in regard to the calculated investment applicable to total sales for resale and testified as follows:

"Q. Now, then let's go to the first page of your exhibit. 'Colorado-Wyoming Gas Company, calculated total investment applicable to total sales for resale.' Now, what do you mean by that? Where did you get that description, Mr. Hancock?

"A. I didn't get it any place. I merely stated it in that manner to describe the information that appears on the sheet.

"Q. Well, where were these figures taken from which appear on that page?

"A. The figures down to the line reading 'Total' in which line appears two figures as follows: $1,984,600, and in the second column $1,838,043, were furnished to me by Mr. Willard.

"Q. And what relation do they have to this exhibit?

"A. The latter figure quoted from my Exhibit 117 of $1,838,043 is the figure which appears in Mr. Willard's Exhibit 111 on the page titled 'Statement No. 1.'

"Q. Yes, that is as far as you took Mr. Willard's figures?

"A. Yes, sir.

"Q. Now, then, you applied your own calculations and allocation factors to the remainder of that page, didn't you?

"A. The remainder of the items on that page were also furnished to me by Mr. Willard.

"Q. Furnished to you by Mr. Willard?

"A. Yes, sir, in response to a specific inquiry by me.

"Q. What was the inquiry and what did Mr. Willard give you?

"A. My inquiry was as to what was the plant and investment account and the plant and investment depreciated represented by the lines used to serve gas to industrial customers and to public authority customers, meaning the specific investment devoted to those customers. For example, the branch line to each of the industrial customers and public authority customers, is included in that investment figure which is deducted from the previously mentioned figure appearing on Mr. Willard's Statement No. 1 and Exhibit 111 (see Appendix), to arrive at the investment used for total sales for resale appearing on the bottom line of the first table of my Exhibit 117.

"Q. Now, in what manner does Mr. Willard arrive at this figure of $106,952?

"A. The investment in industrial branch lines totals $59,997.

"Q. And what is that item composed of?

"A. That item is composed of the following investments in industrial branch lines:

Valmont line, 8⅝ inches in size, $12,008.60;

The Kuner-Empson line, 2⅜ inches, $933.28;

The Colorado Portland Cement Company branch line, 6⅝ inches, $27,012.73;

The Golden Fire Brick Company line, 4½ inches, $7,021.21;

The Coors Brewery line consisting of 2⅜, 1½ inch and 1-inch line, $676.03;

The Great Western Sugar Company line 6⅝ inches and 4½ inches, $6,162.50;

The Marston Lake line, 2⅜ inches, $1,385.95—strike the Marston Lake line.

"I have given the industrial lines which were included in that figure and now if I understand your question you want me to go to the other component parts.

"Q. Yes, sir.

"A. The next part is the lines to public authorities:

The Marston Lake line, 2⅜ inches, $1,385.95.

"Q. What customer does that serve?

"A. The Denver Water Board.

The Fort Warren line, 3½ inches, $8,273.49.

"The next item is the measuring stations for industrial customers.

* * * * * *

"A. The cost of the measuring stations for the industrial customers is as follows:

Colorado Portland Cement Company, $1,625.95;

Continental Oil Company, $505.30;

Coors Brewery, $792.06;

Denver Pressed Brick Company, $356.37;

Golden Fire Brick Company, $1,645.08;

Great Western Sugar Company, $3,193.89;

International Metal Company, $1,472.20;

Kuner-Empson Company, $1,316.44;

Producers Canning Company, $108.94;

Valmont, $5,160.11.

"Next the public authority measuring stations:

The Federal Correctional Institution, previously referred to, I believe, in the testimony as the Federal Prison, $131.29;

Fort Logan, $912.88;

Marston Lake, $610.06;

Fort Warren, $1,612.57.

"• • • The total pipe lines is $66,588.70. The total measuring stations is $19,609.37, making a grand total of $86,198.07.

"The next item to be included in this property devoted to the service of industrial gas customers and public authorities is that portion of the main line investment which is used by the public authorities.

"Q. What character of use do you mean?

"A. For the purpose of transporting gas which is sold to the customers classified as public authority customers.

"Q. I see.

"A. The public authority customers receive gas on a continuous basis and therefore a portion of the main line investment is properly allocable to that business as well as a portion of the compressor station investment which is used for the purpose of compressing gas delivered to public authority customers. The total of such main line and compressing station investment used by public authority customers is $13,180.

"Q. And how did you arrive at that allocated figure?

"A. The gas delivered to Fort Logan traverses 1.531 miles of 10-inch main line. The investment in that main line per Mcf. of peak day capacity is $13.82 per Mcf. The

investment per mile per Mcf. at peak day capacity is $1.0198. The investment per Mcf. of peak capacity for the Fort Logan business is therefore $1.561. The peak day is 25 Mcf. Therefore, the investment actually used by Fort Logan in the main line is $39.

"Following the same method I have computed the investment used by the delivery to the Denver Water Board at Marston Lake, it being 2.491 miles from the beginning of the 10-inch main line and resulting in an investment of $183.

"I take it, Mr. Lange, that having followed the same method, I can testify as to the—it would answer your question if I gave the resulting figure.

"Q. If you followed the same method in each one?

"A. Yes; sir. The only difference being a different number of miles.

"Q. And give the number of miles on that, then, Mr. Hancock?

"A. I have already given it on Marston Lake which is 2.491.

"On the Federal Prison which is 2.560 miles from the beginning of the 10-inch line, the investment used in making such delivery is $26.

"The total of the three foregoing items is $248. The proportionate part of the investment in the Arapahoe compressing station is 1.26 per cent, meaning by that that the peak day demand by the three previously mentioned public authority customers is 1.26 per cent of the maximum daily amount of gas passing through that line which results in an apportionment of $530 investment in Arapahoe station to the three previously mentioned public authority customers.

"The calculation of the main line investment used by Fort Warren is somewhat more complicated. Since a number of branch lines leave the main lines between Arapahoe and the Fort Warren junction, it is necessary to compute the portion of each section of line between branch lines. By following the same method above explained for the first three public authority customers, I arrived at the following conclusions:

"For the Arapahoe-Golden branch junction, the portion of the investment used by Fort Warren in that 13.552 miles of line is $719.

"In that portion of the main line extending from the Golden branch junction to the Boulder branch junction comprising 16.227 miles of line, the investment used by Fort Warren is $1,055.

"For that portion of the Boulder branch line—strike that. For that portion of the main line from the Boulder branch junction to the Brighton branch junction, being 2.533 miles in length, the investment used by Fort Warren is calculated to be $133.

"In that portion of the main line extending from the Brighton branch junction to the Greeley branch junction, being 24.14 miles, the investment used by Fort Warren is calculated to be $1,341.

"For that portion of the main line between the Greeley branch junction and Fort Collins, being 16.049 miles in length, the part used by Fort Warren is calculated to be $1,178.

"For that portion of the main line between Fort Collins and the Cement branch junction, being 5.468 miles in length, is calculated that Fort Warren's use of that investment is represented by $648.

"The next section of line extends from the Cement branch junction to Wellington station, being 7.703 miles in length and that portion of the investment used by Fort Warren is $906.

"The next section extends from Wellington station to the Fort Warren branch line junction and that portion is 27.884 miles in length and the portion used by Fort Warren is calculated to be $3,327.

"The total of the foregoing eight items representing the investment used by Fort Warren in the main line is $9,292.

"The Fort Warren sale also utilizes a portion of the compressing station investments at Arapahoe, Arvada and Wellington, being $212, $685, and $1,124, respectively, or a total of $2,021.

"The total of all of the various foregoing items of investment required to serve the four public authority customers is $12,111, according to this calculation.

"In the calculations which I have used, however, I have used an investment of $12,541, which I figured in another way and by a more simple method than the one which I have just described, and find that the more complicated method checks the simple method fairly closely, the simple method being to relate the sales to public authorities to total sales which results in the figure of 1.17 per cent of the total sale being sold to public authorities, and taking that percentage of the investment in the entire 10-inch, 8-inch and 6-inch main line, produces the figure of $12,541 which has been used.

"The next step is the addition of the working capital to the foregoing investment items and that is arrived at on the basis of working capital per dollar of total system investment, * * * which is estimated to be 2.4 cents, or a working capital corresponding to industrial and public authority sales of $2,500, which added to the foregoing total of all of the detail items mentioned of $104,024 produces $106,524.

"The last remaining item to be added to complete this investment allocation is that portion of the Arapahoe station commitments for the balance of 1940 and 1941, which amount to $428, bringing the total to $106,952, which is the figure appearing in Exhibit No. 117.

"Q. Now, in what fashion did you arrive at the depreciated figure of $90,551?

"A. By applying the actual per cent of observed depreciation to the lines in question. For example, on the industrial lines the weighted per cent condition is 76.84, and by applying the per cent condition of the lines to public authorities of 92.42, and by applying the per cent condition to measuring stations of 94, the depreciated plant and investment of $1,747,492 was arrived at from the undepreciated plant and investment of $1,877,648.

"Q. Now, in connection with Mr. Willard's Exhibit No. 111, Statement 2, the last item on that Statement 2: 'General construction expenditures, $91,619.13,' it appears on

that Statement 2 under the depreciated figure of $84,518.65. How have you treated that particular portion of the investment in your computation?

"A. The general construction expenditure which you have mentioned has been spread over the items which I have previously testified to in proportion to the relation of the total general construction expenditure to the total plant and investment, that being done in the case of the industrial lines to public authorities, measuring stations, on the basis of 5.39 cents per dollar of plant and investment, exclusive of general construction expenditures."

(Vol. 27, pp. 3803-3813.)

The witness, pursuant to previous request, gave the percentage relation of the revenue from sales for resale to the total revenue from sales as shown in Exhibit No. 117, which was:

For the year 1939 the ratio just mentioned was 69.9 per cent; for 1940, 75.3 per cent; for 1941, 75 per cent; for 1942, 75.5 per cent; for 1943, 76.5 per cent; for 1944, 76.6 per cent; for 1945, 77.1 per cent; for 1946, 77.7 per cent; for 1947, 77.9 per cent; for 1948, 78.3 per cent; for 1949, 78.5 per cent.

(Vol. 28, p. 3826.)

The witness stated that the dollar amount allocated to the Colorado Portland Cement Company was "the plant and investment in the 6⅝ Cement Company branch line, 19,434 feet in length, is $27,012.73 and the plant and investment depreciated is $15,828.16 and that this is exclusive of the organization expense and other known physical items which have been added to the specific investment in each line." This would be at the rate of 5.39c per dollar of plant and investment. Similar totals were then given for the Great Western Sugar Company as $4,764.70 and the Valmont line as $11,710.52. (Vol. 28, pp. 3830-3832.)

The witness testified as to deliveries of gas to the Colorado Portland Cement Company, which in 1927 were 40,633,000 cu. ft. and 1,298,567,000 cu. ft. in 1928. The total sales in 1927 were 604,737,000 cu. ft., of which 189,523,000 cu. ft. were delivered to the Cheyenne Company and 340,213,000 cu. ft. to Fort Collins; 40,633,000 cu. ft. to the Ce-

ment Company and 34,368,000 cu. ft. to miscellaneous main line sales. For 1927 the Cement Company received approximately 67% of the total deliveries; in 1928 the Cheyenne Company received 290,053,000 cu. ft.; Fort Collins, 453,926,000 cu. ft.; the Cement Company, 1,298,567,000 cu. ft., and miscellaneous main line customers, 9,411,000 cu. ft., making a total of 2,051,957,000 cu. ft., of which the Cement Company used approximately 63%. All of the deliveries during these two years were from the Wellington Field. (Vol. 28, pp. 3833, 3834.)

In 1929 the Cement Company received 696,891,000 cu. ft., which was approximately 43% of the total sales volume. (Vol. 28, p. 3835.)

In response to inquiry by Commission counsel, Mr. Hancock stated: "The amount of the investments in the various lines and the amounts of the organization and other known physical costs were furnished to me by Mr. Willard, and the computations to which I testified yesterday were made by me or under my direction." (Vol. 28, p. 3836.)

* * * * *

Q. Now, then, Mr. Hancock, with reference to this calculated total investment that you have on Exhibit 117, the ultimate objective by you is to determine what amount of the investment of this company's property was utilized for the sales of gas for resale?

A. That is right.

Q. All right, then, what kind of investment structure had to be built if you wanted to determine how the gas could be delivered to the industrials and public authority customers by this company?

A. I made no endeavor to do that.

Q. You made no endeavor to do that?

A. No, sir.

Q. Well, this company has from its beginning served both for resale as well as to industrial main line customers and public authority customers, hasn't it?

A. Generally speaking, that is true.

Q. And the way you have it constructed, the only portion of this entire investment that is applicable in your opinion to industrial and public authority customers on this company's system is $106,952, plant and investment depreciated to $90,551?

A. That is right. If the system was built as it is to supply only the customers to whom gas is sold for resale, it would be necessary to have the plant, as here indicated, represented by the plant and investment figure of $1,877,648.

Q. But the system was not in fact so built, was it, Mr. Hancock?

A. It was so built except for small branches to these industrial customers who use gas off peak and are cut off at time of peak day demand.

Q. Now, how was the system built that you attempt to apply to your calculated total investment here given in Exhibit No. 117?

A. You say, how was the system built?

Q. Yes, with reference to your interpretation of the applicable total investment of property, resale customers.

A. The general pipe line system was built as it now is primarily to serve the customers receiving gas for resale.

Q. Well, when you say right there "primarily" what do you mean by "primarily" with reference to the total?

A. It means that the system was built, having in mind the gas volume requirements of the customers now receiving gas for resale, and the connection of industrial customers through specially built branch lines devoted solely to the service of these industrial customers, was purely incidental.

Q. Purely incidental?

A. Yes, sir, and did not affect the construction of the main pipe line system as a whole.

(Vol. 27, pp. 3813-3815.)

* * * * *

The second question related to the location of sections of the 10-inch, 8-inch and 6-inch main lines where reconditioning operations were expected to take place in 1940, 1941 and a portion of 1942.

On the 10-inch main line there were 1300 feet of pipe line involved as follows: Station Nos. 984 to 994, involving 1,000 feet of 10-inch main line. This section is along the foot of the earthen dam of the Calkins reservoir, and is alternately wet and dry. The line, however, is in dry soil both north and south of the 1,000-foot section, it being through a wheat farming area.

Also along the 10-inch main line is 300 feet of pipe line scheduled for reconditioning between stations Nos. 938 and 941. This short section of line is across a small creek and there is only about 100 feet of line to be actually reconditioned but it is necessary to lift the 300 feet in order to raise the 100 foot section above water. The line is in dry soil both north and south of the previously mentioned stretch of line and is in a wheat farming country.

On the 8-inch main line there is involved in the reconditioning program for the previously mentioned period of time, 8,800 feet of line as follows:

Between stations 2081 and 2100 there is 1900 feet of 8-inch pipe line in alternately wet and dry soil through a beet farming area between the St. Vrain River and the Left-Hand creek. Between stations 2058 and 2063 there is 500 feet of 8-inch main line across left-hand creek and swampy ground adjacent on the south side, also in the beet farming territory. There is also 3200 feet of 8-inch main line between stations 2149 and 2181 through very wet beet farming area on the south side of the St. Vrain River and across the river. There is 1600 feet of 8-inch main line between stations 3423 and 3439, alternately wet and dry soil just north of the gate box at Station No. 3423 plus 60.

There is also 1600 feet of 8-inch main line between stations 3456 and 3472, in alternately wet and dry soil. This makes a total of 8800 feet of 8-inch main line scheduled for reconditioning.

On the 6-inch main line there is a total of 10,500 feet of main line to be reconditioned as follows:

300 feet of pipe line between stations 4270 and 4273, near an irrigation ditch which is wet during the growing season and dry in winter. The soil is dry both north and south of the 300-foot section. This line was carefully inspected in 1931 but no reconditioning work was done on it at that time.

There are 4,600 feet of 6-inch main line between stations 4383 and 4429. 62 feet of this section was excavated in 1935 and 13 feet of pipe was replaced. No more was done at that time because the beet crop on the right of way was

then in the growing stage. It now becomes necessary to recondition the entire section through the beet field. That portion of the work is actually now being done and now being completed.

There is 1500 feet of 6-inch main line between stations 4444 and 4459 which is in another beet field alternately wet and dry.

There is also 1100 feet of 6-inch main line between stations 4519 and 4530. The corrosion of this line might be attributable to the delivery of warm gas from the Wellington station during the early years of operation of this station.

There is also 3,000 feet of 6-inch main line between stations 5514 and 5544 in wet soil underneath an alfalfa field through which Lone Tree Creek flows. This is about two miles north of the Wyoming state line. The line is in dry soil both north and south of the alfalfa field. That makes a total of 10,500 feet of 6-inch main line scheduled for reconditioning.

Q. That completes that information?

A. It does.

Q. Referring to Exhibit No. 117, Mr. Hancock, the page on calculated total investment applicable to total sales for resale, the item Investment Used by Industrial and Public Authority Customers, under Plant and Investment, Total $106,952 and Depreciated $90,551.

A. Yes, sir.

Q. What portion of that dollar item was allocated to Colorado Portland Cement Company by you; and at that point, before I forget it, the name of that company before the service was installed was the Ideal Cement Company?

A. It may have been. I still think the parent company is the Ideal Cement Company, but I am not sure of that.

Q. So if there was any reference to Ideal Cement Company it would refer to this plant?

A. That is right.

Q. All right.

A. The Plant and Investment in the 6-5/8-inch cement company branch line, 19,434 feet in length, is $27,012.73, and the Plant and Investment Depreciated is $15,828.16; and that, as testified to yesterday, is exclusive of the Or-

ganization Expense and other known physical items which have been added to specific investment in each line.

Q. What would that amount to?

A. That has been added to the overall amount in my calculations instead of to the individual line items.

Q. Couldn't you attribute the proportionate amount that would be under your method allocatable to this particular service?

A. It would be proportional.

Q. In what per cent?

A. At the rate of 5.39 cents per dollar of plant investment amount.

Q. That is the total that you have allocated to that customer under your item of investment used by industrial and public authority customers on Exhibit No. 117?

A. That would be the effect of what I have done.

Q. What is the total you have allocated to Great Western Sugar Company?

A. I have two items, if you wish them. Do you wish them individually or totally?

Q. Yes.

A. 4-½-inch pipe line, 345 feet in length, plant and investment, $310.50; plant investment depreciated, $252.81; 6-⅝-inch line, 4,180 feet in length, plant and investment, $5,852; plant and investment depreciated, $4,764.70.

Q. Is that the total amount?

A. Those are the two amounts that make the total.

Q. The two amounts that make the total?

A. Yes.

Q. What about the proportionate part of the undistributed?

A. The same statement applies to this as I made in regard to the Colorado Portland Cement Company line.

Q. Now, the total amount that you have allocated to the Valmont line is what?

A. The Valmont line is 8-⅝, 6,275 feet, plant and investment, $12,008.60; plant and investment depreciated, $11,710.52.

Mr. McCreery: Does that include the measuring equipment, Mr. Hancock?

The Witness: No, sir. I am now referring only to the pipe lines.

I believe I read into the record yesterday the investment in the individual measuring stations to each of these industrial customers and the public authority customers.

Mr. McCreery: I wanted to clear that point up. That is all.

By Mr. Lange:

Q. Now, then, do you have the Mcf. delivered to the Colorado Portland Cement Company for the years 1927 and 1928?

A. Yes, sir.

Q. All right.

A. In 1927, deliveries to Colorado Portland Cement Company, 40,633,000 cubic feet; in 1928, 1,298,567,000 cubic feet.

Q. Now, going back to 1927, do you have the total deliveries for that year in Mcf., and is the 1927 figure one that represents a whole year or what portion of a year?

A. There are two questions there. I will answer the first one first.

Q. All right.

A. The total sales in 1927 were 604,737,000 cubic feet. Do you wish the ratio there?

Q. Yes, please give me the Mcf. at each delivery point during that year.

A. The previously mentioned total delivery of 604,737,000 cubic feet comprises 189,523,000 cubic feet to the Cheyenne Light, Fuel & Power Company; 340,213,000 cubic feet to the distributing company at Fort Collins; 40,633,000 cubic feet to the Colorado Portland Cement Company; and 34,368,000 cubic feet to miscellaneous main line sales not reflected on this sheet as to individuals.

The previously mentioned 40,633,000 cubic feet sale to the Colorado Portland Cement Company is approximately 6.7 per cent of the total deliveries during that year, the delivery to the cement company starting on November 5, 1927.

Q. In other words, the deliveries to the other purchasers were during that entire year compared with the delivery to the Colorado Portland Cement Company for a period from November 5 to the end of that year?

A. With the possible exception of that not applicable to small users, but in the main that is correct.

Q. Now, state it for 1928.

A. In 1928 the volume sales to the Cheyenne Light, Fuel & Power Company was 290,053,000 cubic feet; to the distributing company at Fort Collins, 453,926,000 cubic feet. To the—

Mr. McCreery: Is that Mcf. or cubic feet?

The Witness: 453,926,000 cubic feet.

To the Colorado Portland Cement Company, 1,298,567,000 cubic feet; to miscellaneous main line customers, 9,411,000 cubic feet, or a total of 2,051,957,000 cubic feet.

The sale to the Colorado Portland Cement Company previously mentioned in that year represents approximately 63 per cent of the total sales.

By Mr. Lange:

Q. Now, Mr. Hancock, with reference to the—

Mr. McCreery: May I interpose one question for the sake of clarity?

Mr. Lange: Surely.

Mr. McCreery: All gas deliveries in those two years were from the Wellington field, were they, Mr. Hancock?

The Witness: They were.

By Mr. Lange:

Q. When did delivery from the Wellington field cease?

A. The last delivery was in 1937.

Q. 1937?

A. Yes.

Q. Now, for the year 1929, give us those same figures, please.

A. In 1929 the sale to the Cheyenne Light, Fuel & Power Company was 382,283,000 cubic feet; to the distributing company at Fort Collins, 496,197,000 cubic feet; to the distributing company at Boulder, 21,490,000 cubic feet; to what I refer to as the Denver fringe district on the west side of Denver, 832,000 cubic feet; to the Great Western Sugar Company, 10,932,000 cubic feet; to the Colorado Portland Cement Company, 696,891,000 cubic feet; to miscellaneous main line customers, 10,615,000 cubic feet, making a total for all sales of 1,619,240,000 cubic feet.

The percentage which the sale to the cement company bears in relation to the total sales is approximately 43 per cent.

Q. The delivery to the Great Western Sugar Company was commenced at what time?

A. On November 30, 1929.

Q. And the town border service at Johnstown commenced when?

A. July 24, 1930.

Q. Now, again referring back to that calculated total investment made in your Exhibit No. 117, Mr. Hancock, I believe you stated yesterday that the method of calculating the allocations was carried out by Mr. Willard, or what fashion was that material delivered to you, and by whom?

A. The amount of the investments in the various lines and the amounts of the organization and other known physical costs were furnished to me by Mr. Willard, and the computations to which I testified to yesterday were made by me or under my direction.

Q. With reference to this information furnished to you by Mr. Willard, did you make any independent investigation of your own on that or what did you do, if anything?

A. No, sir, I accepted the plant and investment data furnished to me by Mr. Willard.

Q. Will you read this letter from the Colorado-Wyoming Gas Company into the record?

Mr. McCreery: Please let me see the letter.

Mr. Lange: Surely.

(The document referred to was passed to Mr. McCreery.)

By Mr. Lange:

Q. Who is that letter from, Mr. Hancock?

A. From the Colorado-Wyoming Gas Company, 407 Continental Oil Building, Denver, Colorado, and is signed by Mr. H. P. Davis, Secretary.

Q. And that is addressed to whom?

A. It is addressed to the Federal Power Commission, Central Savings Bank Building, Denver, Colorado.

Q. And bears what date?

A. November 7, 1939.

Q. Will you please read that letter?
A. Yes.

"Federal Power Commission, Central Savings Bank Building, Denver, Colorado.

"Gentlemen: Att'n: Mr. K. L. Smith, Examiner

"At the time of constructing our main line from Denver to Ft. Collins, Public Service Company of Colorado specifically requested that we include sufficient capacity in our lines to enable us to serve gas to Valmont plant. This involved changes in our construction from Arvada to Valmont Junction.

"1. Increase proposed 8-inch line from Arvada station to Boulder Junction to 10-inch size.

"2. Increase proposed 6-inch line from Boulder Junction to Valmont Junction to 8-inch size.

"The cost of this additional capacity installed in our lines under the expectation that we would be able to sell them approximately 1 billion cubic feet of gas annually was estimated by our engineers at $60,800. In addition to the above it was necessary that we construct a branch from the Boulder line to Valmont and a measuring station at the terminal. This latter branch and station shows a job order cost of $17,223, making a total investment of approximately $78,000.

"As stated above, we contemplated a load of 1 billion cubic feet annually, and, based on this volume it was determined that the business could be handled at a profit if the gross return to us was not less than 2.3 cents per Mcf. exclusive of cost of gas purchased. This was computed as follows:

"4 per cent depreciation on $80,000	—	$3200
"6 per cent return on investment	—	4800
"Compression costs on 1 billion feet estimated at 1 cent	—	10000
"Taxes, and other operating costs	—	5000
"Total	—	$23000

"Public Service Company of Colorado could not assure

us of any continuity in their usage and declined to enter into any firm commitment for gas and up to 1936 this investment, (made at their request) had not earned us a penny. At that time we insisted that a contract be entered into that would give us a fair return and depreciation on our investment. It was finally determined that in fairness to both parties they pay us a readiness to serve charge equal to depreciation and return or $8000 per year and we in turn would sell them such a quantity of gas as they care to use, up to 1 billion feet per year at a rate of 1½ cents above the price at which we might be able to purchase same from Colorado Interstate Gas Company. They could use this quantity of gas or none at all as they saw fit. The so-called 'nominal' price was mutually agreed as being the best price which we or either of us could obtain from the Colorado Interstate at such time and for such quantity as they might elect to use.

"We have no agreement with Colorado Interstate fixing the nominal price for Valmont gas. This must be bargained for separately whenever the Public Service Company notifies us that they wish to use. For deliveries made in 1939 we were able to secure a price of 9½ cents per Mcf., as evidenced by copy of attached letter from Colorado Interstate Gas Company dated May 10, 1939.

"Yours very truly,

"H. P. Davis, Secretary."

Q: Now, with reference to the agreement between Colorado-Wyoming Gas Company and Public Service Company of Colorado, being No. 9 in Exhibit No. 103, Page—rather, it is the second page of that beginning with this paragraph, Paragraph "Third" at the top of the page:

"Vendee agrees to • • •"—strike that.

"Vendee • • •"—that would be the Colorado-Wyoming Gas Company—

A. That would be the Public Service Company of Colorado.

Q. "• • • agrees to pay vendor • • •"—the Colorado-Wyoming Gas Company—"• • • for the readiness to serve provided under this contract a customer charge of eight thousand dollars ($8,000) per year applying against the

fixed charges on that part of the vendor's investment which was made for this purpose."

You are familiar with that portion of the agreement, Mr. Hancock?

A. Yes, sir.

Q. And also with the contents of that letter from the Colorado-Wyoming Gas Company?

A. No, sir.

Q. All right, is that the first time you knew of the facts set forth in that letter?

A. No, I knew of the facts but I didn't know of the letter.

Q. Well, what consideration did you give those facts?

A. I knew the facts and gave them due consideration.

Q. In connection with this exhibit you have prepared, Exhibit No. 117?

A. Yes, sir.

Q. And also in connection with the allocation factors that you have just related?

A. Yes, sir. I can give my reasons if you care for them.

Q. Yes.

A. My conclusion was that while this letter and the contract recites the facts which existed at the time of the construction, not necessarily at the time of the execution of the contract with the Public Service Company of Colorado Valmont plant, my conclusion was as follows:

That in view of the rapid growth of the load of customers to whom gas is sold for resale, as well as to a limited extent to public authorities, I wish that we had made similar contracts with other customers which would have resulted in more capacity in the main lines actually used now for sale and resale. In other words, I think it was a fortuitous circumstance which resulted in the installation of the additional capacity. If it had not been installed at that time the load could not have been handled as it actually has been handled.

Q. And you are still definitely of the opinion that the method that you have in that exhibit is the proper one?

A. Yes, the method being that the investment solely dedicated to the use of the Valmont plant is deducted; further, that we have also deducted, as testified to yester-

day, that portion of the investment in the 10-inch, 8-inch, and 6-inch main line, which is used on peak days for service to public authority customers on a somewhat theoretical basis. In other words, it only amounts to about one per cent of the investment in that line and obviously it would be impossible if the sale for resale customers were only served to make any reduction whatever in the investment required to service those customers.

Hence, if service was contemplated only to the sales for resale, those lines would need to be constructed exactly as they are.

Q. Now, you know, of course, that this contract between Colorado-Wyoming Gas Company and Public Service Company of Colorado is dated December 31, 1935, and is provided to continue in force until October 3, 1949?

A. That is right.

I would like to also point out, if I may, that there is no obligation to deliver gas on peak days; that there is no intention of using any portion of the main line capacity when that gas is needed for delivery to sales for resale and public authorities, and that is the way it actually works out under actual operating conditions.

(Vol. 28, pp. 3826-3842.)

* * * * *

Q. I see. Now, this service to Colorado Portland Cement Company has been of considerable volume as indicated by your figures for 1928 and 1929 as well as those in the exhibit of Mr. Davis, 105, and that service has been maintained pretty steadily by the company, hasn't it?

A. It has fluctuated from year to year.

Q. I mean in so far as continuity of service and lack of interruptions wherever possible is concerned.

A. It has been maintained at all times when the Colorado Portland Cement Company desired gas and when the Colorado-Wyoming Gas Company was able to furnish it.

Q. Do you know anything about a reference in Work Order No. 145, December 21, 1938?

A. No, sir.

Q. Read that, please.

A. This is what the sheet says:

"No. 145; Date, December 21st, 1938; estimated cost by accounts: Compressor stations, $988, Dr.; Compressor stations, $360, Cr.; Replacement reserves, $306, Dr.; Replacement reserves, $64, Cr.; Total, $924.

"Description: Equipped four compressors at Arvada station wtih unloading valves. There are six compressors at this station, two of which were supplied with unloading valves when new Class A cylinders were purchased two years ago. This requisition is to provide unloading valves for the other four compressors.

"Benefits, Etc.: Fuel saving of $150 per year in addition to retaining the load of the Cement plant which nets approximately $20,000 annually. Uninterrupted service to the Cement plant is very essential."

Q. The Cement plant referred to is the Colorado Portland Cement Company?

A. I believe it is.

Mr. Lange: Now, I don't know whether this is an accurate transcription of the voucher. We desire to supply an accurate transcription of that voucher—the job order, rather.

Mr. McCreery: Will you give us the number, please?

Mr. Lange: No. 145. And when that original is available, we desire—

Mr. McCreery: We'll have that after lunch.

Mr. Lange: We then desire to—

The Trial Examiner: I didn't hear your remarks, Mr. McCreery.

Mr. McCreery: I think we can have that here for Mr. Lange after lunch.

Mr. Lange: At that time, then, we will offer it.

Mr. McCreery: Do you want it as an exhibit? It is already read in the record.

Mr. Lange: Well, if it is correct as read, why, we need—

Mr. McCreery: Well, that is subject to comparison, and just leave it for that purpose.

Mr. Lange: We will offer it as it has been read, subject to any correction.

Mr. McCreery: That will be simpler, I think. I have no objection.

By Mr. Lange:

Q. Now, Mr. Hancock, what is the percentage of the total main line industrial load to the resale load for the year 1939?

Mr. McCreery: In volume or dollars?

Mr. Lange: In Mcf.

The Witness: May I have that question, please?

(The question referred to was read by the reporter, as set forth above.)

The Witness: That percentage don't mean anything to me. It involves different things. Now, may I make a suggestion?

By Mr. Lange:

Q. Yes.

A. You want the percentage of the industrial main line road to the total?

Q. To the total.

A. To the total sales?

Q. That's right.

A. For the year 1939 the industrial and main line direct sales volume was approximately 48 per cent of the total sales volume.

Q. Now, on this Exhibit 17, earnings statement, total sales for resale, 1939 through 1945, I notice that in connection with this statement your computations only go through the year 1945. The others go through the year 1949?

A. That is right.

Q. Why that difference?

A. On the statement which is extended to 1949 covering the entire operations of Colorado-Wyoming Gas Company, there isn't much variation beyond 1945 for the reason that 1945 reflects the full effect of the last step in the purchased gas contract price, and for that reason, in an effort to

simplify the calculations, the remaining years were not actually carried out on Exhibit 117.

Q. Now, your allocation factors applied to operation and maintenance in this exhibit, did you get those from Mr. Willard?

A. No, sir.

Q. Those were computed by you?

A. By me or under by direction.

Q. And they apply to all items under operation and maintenance, do they not?

A. Yes, sir.

Q. And, of course, the totals follow in like order?

A. Yes, sir.

Q. And these allocations were computed by you with a view of relating them to the allocations as had been prepared by Mr. Willard and used by you on the calculated total investment, the page preceding this?

A. We used the figures prepared by Mr. Willard which are not allocations but actual figures from the books for various purposes throughout this Exhibit 117. The plant and investment figures so procured from Mr. Willard I used in allocating taxes and maintenance and items of that character as well as arriving at the total plant and investment which is used by customers to whom gas is sold for resale.

Q. And what I really want to be certain about is that the allocations as reflected by you in the earnings statement and the figures there computed were intended to be related—or, rather, to be applied to the figures as reflected on the calculated total investment sheet preceding?

A. That is right.

Q. And you computed with that in mind?

A. That is right.

Q. Now, referring back to this earnings statement again, Mr. Hancock, particularly as to operation and maintenance expense, I don't know whether there is clearly reflected in the record the method pursued by you in making your allocations of expense items, of all of those operating and maintenance items, I should say, to be accurate.

A. The first item is the cost of gas purchased, and is arrived at by computing the cost of gas purchased for resale by Colorado-Wyoming Gas Company to customers who re-

sell the gas. Those volumes are computed at the rates set forth in the purchased gas contracts.

Q. Yes, that is on your purchased gas expense?

A. Yes, sir.

Q. Now, on transmission operations—

The Trial Examiner: Mr. Hancock, did you include in that the unaccounted-for gas?

The Witness: Not in the figure I have just mentioned but I did include it in the total figure which appears on this sheet. For example, the $330,410 for the year 1939 includes $323,024 for cost of gas purchased for resale and $2,428 for company used gas and $4,959 for lost and unaccounted-for gas, making the total appearing in the exhibit.

Mr. McCreery: Well, the lost and unaccounted-for gas was paid for at this same rate?

The Witness: It was paid for at the contract rate.

Mr. McCreery: Yes.

The Witness: However, the company used gas was paid for at the industrial gas—

Mr. McCreery: Yes, but I meant the unaccounted-for gas.

The Witness: That is right.

By Mr. Lange:

Q. Let me understand exactly what you did with reference to the line lost gas—your unaccounted-for.

A. Do you mean how I computed it?

Q. How you allocated it.

A. I took each of the industrial and public authority lines to which I have referred in previous testimony and computed the number of miles of 3-inch equivalent main contained in those lines, and also computed the average pressure at which those lines operate, and thereby obtained data on which to base the lost and unaccounted-for gas calculation.

Q. All right, now, under your next item, transmission maintenance.

A. Transmission operation.

The Trial Examiner: Operation.

By Mr. Lange:

Q. Operation; that's right.

A. That item includes the same item for company used gas which appears in the purchased gas expense as well as the operating cost of the compressing station facilities which are devoted to the sale of gas for resale. It also includes an item for mains operation, and that has been arrived at by computing the ratio of the mileage which the industrial and public authority lines bears to the total mileage in the system of the company, that ratio being 5.75 per cent. The measuring station operation which is the last item in the caption has been computed on the basis of the number of measuring stations serving industrial and public authority customers to the total number of measuring stations, that ratio being 17, industrial and public authority stations and 38 total, which is 44.7 per cent, which is due to the operation of industrial and public authority stations and that is deducted from the total measuring station operation to obtain that portion due to sale for resale customers.

(Vol. 28, pp. 3849-3856.)

* * * * *

Redirect Examination.

By Mr. McCreery:

Q. In operating and maintaining and carrying on the operations such as Colorado-Wyoming Gas Company carried on in the delivery of gas, particularly to its sale of gas for resale, which in a large part relates to house heating and domestic use, is it not a necessary practice to provide even against what may not be expected with respect to its ability to deliver gas under all circumstances?

A. Yes, it is necessary to provide against the maximum load which may be expected, and in my opinion to provide some surplus over and above that

Q. And to anticipate there may be under those stress conditions a reduction in pressure deliveries?

A. Yes, there is no assurance that those reductions will not take place and we have to be governed by what we be-

lieve to be the minimum pressure at which gas will be delivered. That is all we can depend on.

Q. And in your studies which have been under review in this examination, you have considered that necessary practice in arriving at the results at which you have arrived?

A. Yes, but I have not gone the full distance. It may be necessary if experience proves in the future that the pressures go below the 75 pounds that I referred to, that even more compressor station capacity than I have included here will be necessary, but for the moment that appears to be the required amount.

Q. And that pressure of 75 pounds being 25 pounds in excess of the contract requirement of delivery?

A. That is right.

Mr. McCreery: That is all.

Recross Examination.

By Mr. Lange:

Q. And if the pressure at which the gas is delivered to you by Colorado Interstate Gas Company is greatly in excess of 70 pounds, there would be that much less compression required by you?

A. That is correct on those days when it is in excess—

Q. To the extent that it is in excess of 70 pounds in like ratio there will be less compression required by you?

A. That is correct.

Q. And with reference to the matter that Mr. McCreery has just asked you about as to the very definite concern that the company has for getting and keeping—strike out "getting and keeping"—for delivering gas for resale and maintaining pressures on that portion of its operation, it is similarly concerned, as was indicated in that work order, to maintain uninterrupted deliveries to Colorado Portland Cement Company?

A. It is concerned to make every endeavor to reduce the number of interruptions to the industrial customers to the least possible number, and that concern arises from some very real situations with which the management is confronted in that regard.

Q. You do not disagree with the fact that there is very evident concern on the part of the company, as indicated in

its work order, with reference to that continuity of service to Colorado Portland Cement Company?

A. There is no endeavor on the part of the management to take those steps which would result in uninterrupted delivery, but to take those steps towards the utilization of all of the existing facilities of the company in a manner which will result in the least number of interruptions; if those interruptions were too frequent, the industrial customers affected would stop using gas and the earning would be lost.

Redirect Examination.

By Mr. McCreery:

Q. Do you know whether or not it is a fact that there have been very definite and emphatic protests and objections by certain industrial users even with respect to the infrequent interruptions which have taken place in their use?

A. I do.

Q. In relation to what companies in particular?

A. Particularly the Great Western Sugar Company.

Q. At Johnstown?

A. At Johnstown.

Q. Is it not a fact, Mr. Hancock, that in the period from 1939 to 1940 the substantial increase and anticipated total volume of sales for resale will definitely increase in higher peak day demands from year to year under normal weather conditions?

A. That is true. Much of the added business is of a peak load nature.

Q. One further question.

Referring again to the industrials and the inquiries that were made from the industrial consumers with respect to their anticipated use, were there any of those industrials that expect to increase or decrease their facilities for use or to change their current operations in any substantial way?

A. No, the expressed intent was to proceed in the immediate future in about the same manner as they had been proceeding in the immediate past with due consideration of fluctuations in the line of business in which they were engaged.

Q. None of the industrials indicated that they expected to enlarge their facilities at the particular plants served?

A. They did not.

Q. That inquiry was made, was it not?

A. Yes, sir.

(Vol. 28, pp. 3866-3870.)

* * * * *

There are references in the testimony of this witness to the interruptions in service to industrial customers. (Vol. 28, pp. 3842-3851; 3857; 3860-3864; 3868, 3869; 3875-3880; Vol. 29, pp. 3956, 3957, 3967.)

* * * * * *

The witness gave the percentage of the industrial main line load to the total for the year 1939, as 48% of the total sales volume. The computations in Exhibit 117 included only items through the year 1945, for the reason that this year reflects the full effect of the last step in the purchased gas contract and for that reason was not continued beyond that period. (Vol. 28, p. 3852.)

(c) *Allocation Factors Applied to Operation and Maintenance Sales for Resale.*

These were computed by the witness or under his direction and applied to all items under operation and maintenance. The total investment figures prepared by Mr. Willard were actual figures from the books and were used for various purposes throughout Exhibit 117. The plant and investment figures procured from Mr. Willard were used in allocating taxes and maintenance and items of that character, as well as arriving at the total plant and investment which was used by customers to whom gas is sold for resale. (Vol. 28, p. 3853.)

Counsel for the Commission then asked the witness to explain the method used in making allocations of expense items and operating and maintenance items and the following testimony was given:

"A. The first item is the cost of gas purchased, and is arrived at by computing the cost of gas purchased for resale by Colorado-Wyoming Gas Company to customers who resell the gas. Those volumes are computed at the rates set forth in the purchased gas contracts.

"Q. Yes, that is on your purchased gas expense?
"A. Yes, sir.
"Q. Now, on transmission operations—

"*The Trial Examiner:* Mr. Hancock, did you include in that the unaccounted-for gas?

"*The Witness:* Not in the figure I have just mentioned but I did include it in the total figure which appears on this sheet. For example, the $330,410 for the year 1939 includes $323,024 for cost of gas purchased for sale and $2,428 for company used gas and $4,159 for lost and unaccounted-for gas, making the total appearing in the exhibit.

"*Mr. McCreery:* Well, the lost and unaccounted-for gas was paid for at this same rate?

"*The Witness:* It was paid for at the contract rate . . . However, the company used gas was paid for at the industrial gas—

. . . . . .

"Q. Let me understand exactly what you did with reference to the line lost gas—your unaccounted-for.
"A. Do you mean how I computed it?
"Q. How you allocated it.
"A. I took each of the industrial and public authority lines to which I have referred in previous testimony and computed the number of miles of 3-inch equivalent main contained in those lines, and also computed the average pressure at which those lines operate, and thereby obtained data on which to base the lost and unaccounted-for gas calculation.
"Q. All right, now, under your next item, transmission operation.

. . . . . .

"A. That item includes the same item for company used gas which appears in the purchased gas expense as well as the operating cost of the compressing station facilities which are devoted to the sale of gas for resale. It also includes an item for mains operation, and that has been arrived at by computing the ratio of the mileage which the industrial and public authority lines bears to the total mileage in the system of the company, that ratio being 5.75 per cent. The measuring station operation which is the last item in the caption has been computed on the basis of the number of measuring stations serving industrial and public authority

customers to the total number of measuring stations, that ratio being 17, industrial and public authority stations and 38 total, which is 44.7 per cent which is due to the operation of industrial and public authority stations and that is deducted from the total measuring station operation to obtain that portion due to sale for resale customers."

(Vol. 28, pp. 3854-3856.)

In response to a question by the Trial Examiner, the witness stated that the peak-day demand for 1940, was on January 18, and was 11,646,000 M. c. f. and on that day there were 10,191,000 M. c. f. relivered to resale customers. In November, 1940, the peak-day demand was 15,817,000 M. c. f., which is the highest peak day experienced by the Company. The industrials on that day were off a substantial part of the time. The system was fully loaded on the days mentioned. (Vol. 28, p. 3857.)

The witness stated that after the completion of the Arapahoe Compressing Station, with an intake pressure of 50 pounds, it will have a capacity of 15,100,000 M. c. f. If the intake delivery pressure from the Colorado Interstate Company is 75 pounds, the station will have a capacity of 21,200,000 M. c. f. and 175 pounds discharge pressure. (Vol. 28, p. 3858.)

The witness stated that the lowest intake pressure from the Colorado Interstate Company which had occurred to date was 71 pounds. (Vol. 28, p. 3861.)

On redirect examination the witness stated that it was the practice of the Colorado-Wyoming Company, in its operations, which in large part relate to heating and domestic use, to provide against the maximum load which may be expected and to provide some surplus above that. The Company has no assurance that reductions in intake pressure will not reach a minimum. The contract pressure is all that can be depended upon. (Vol. 28, p. 3866.)

The witness further stated on redirect examination that in the period from 1939 to 1940, there was a substantial increase in anticipated volume of sales for resale which will definitely increase peak-day demands from year to year under normal weather conditions. (Vol. 28, p. 3869.)

* * * * *

Company Exhibit 118 (Appendix this Record).

II. Sales for Resale, Cheyenne, Wyoming.

Mr. Hancock presented Exhibit 118 (see Appendix) which "relates to the sales for resale to the distributing company at Cheyenne, Wyoming, and the plant and property applicable to such sales and the operating revenue, gross and net, derived from such sale." (Vol. 28, p. 3890.)

(a) *General Explanation of Exhibit 118.*

He testified in accordance with the statement attached to said exhibit as follows:

"In Exhibit No. 118 are set forth that part of the earnings and plant investment of Colorado-Wyoming Gas Company devoted to the service of gas under sales for resale at Cheyenne, Wyoming, only.

"The earnings so apportioned, for the year 1939 and ten months of the year 1940 are based on actual operation, and for the remainder of the period ending in 1945 are allocated on the projected earnings of the company as shown on Exhibit No. 115. The volume of gas sales, total revenue and cost of purchased gas are predicated on actual and expected sales at Cheyenne for resale. Transmission and operation expenses and general taxes are apportioned. Federal income taxes were based on Cheyenne earnings so found. (Statement No. 3.)

"The portion of plant capacity and investment found for such Cheyenne service is based on the ratio of peak day demand in Cheyenne as compared with total peak day use of the main line. (Statement No. 2.)

"As a part of the exhibit there is also included an estimated plant investment required to render the Cheyenne sale for resale service. Such estimate is predicated on

actual construction and capital costs as incurred by this company in the years 1929 to 1931. (Statement No. 1.)

"The exhibit thus shows the amount of plant devoted to the Cheyenne sale for resale service and the earnings therefrom for the period from 1939 projected from year to year, to and including 1945."

(Vol. 28, pp. 3890, 3891.)

Note: Analysis of Exhibit 118 follows:

Statement No. 1, entitled "Estimated Investment," considers all items necessary in the construction, and the total estimated plant and investment is calculated and depreciated. The depreciated investment is $833,173.

Statement No. 2 is a calculation of the present main line investment applicable to Cheyenne, which has been depreciated. This table divides the investment into main line and other investments, including working capital and producing a total plant and investment, less depreciation, applicable to Cheyenne, of $665,592.

Statement No. 3 is an earnings statement of sales for resale at Cheyenne for the years 1939 to 1945, inclusive. This table shows the gas sales for resale in M. c. f., domestic and industrial, the gross earnings from operations, domestic and industrial, and cost of operation and maintenance, itemized. The net to reserves and return after payment of Federal Income Tax is shown to be in the years stated as follows: 1939, $46,175; 1940, $37,378; 1941, $35,608; 1942, $37,428; 1943, $37,319; 1944, $33,549; and 1945, $27,042.

(b) "*Estimated Investment to Serve Cheyenne Only.*"

Upon cross-examination the witness was asked if *Statement No. 1, Exhibit 118,* was not based upon an assumed situation, to which he replied "it is assumed on an estimate worked out to reflect the items referred to in the foregoing statement." (Statement No. 1.) "It is the result of engineering calculation." He further testified that the 6-inch

main line from Arapahoe to Cheyenne, as described in Exhibit 118, is based upon two-unit cost figures for the construction of the same. 41.6 miles now actually exist. This is the section between Cheyenne and Fort Collins, and the cost of installing this section was $7,248 per mile. The remainder of the 6-inch main line of 72.497 miles was figured at a cost of $6,720 per mile, which is the actual cost of the 6-inch branch to Greeley, Colorado, constructed in 1930. (Vol. 28, pp. 3892-3894.) He stated that the first portion of the 6-inch line between the Wellington Field and Fort Collins was laid late in 1925, and that deliveries from the Wellington Field, after 1926, were as follows; 1927, 620,545 M. c. f.; 1928, 2,254,599 M. c. f.; 1929, 1,718,642 M. c. f. In the year 1929, 33,943 M. c. f. were purchased from the Colorado Interstate Company. In 1926 the sales were as follows: The Cheyenne Company, 52,095 M. c. f.; Fort Collins, 157,803 M. c. f.; and miscellaneous main line customers, 57,582 M. c. f., a total of 267,480 M. c. f. In 1930 the purchases from the Wellington Field were 1,275,030 M. c. f.

The witness stated that gas flowed both north and south from the Wellington Station in 1930, and that an hour-to-hour analysis would be necessary to determine whether or not any Texas gas went north from that station. If the Wellington Field produced gas uniformly, it could have supplied the Cheyenne load in 1930. (Vol. 28, pp. 3899-3901.)

In 1931 the purchases from the Wellington Field were 453,955 M. c. f. During that year Cheyenne purchased 461,412 M. c. f. Obviously Texas gas went to Cheyenne during that year. (Vol. 28, pp. 3901, 3902.)

The witness stated that the proposed 6-inch line from Arapahoe to Cheyenne was depreciated in accordance with the results of the inspection made by the witness in September of 1939, as shown in Exhibit 107. If such a 6-inch line was constructed, a 400 H. P. compressor station would be required at Loveland, Colorado to deliver gas at Cheyenne. The estimate of $36,000 for this station is arrived at on the observed per cent condition of the existing compressing stations of the Company. (Vol. 28, pp. 3909, 3910.)

It was also calculated that a 400 H. P. station would be

required at or near the present Arapahoe station and the per cent condition of this station was in accordance with the depreciation percentages computed in 1940. The same type of a compressor unit was figured, but smaller than the one now at Arapahoe. (Vol. 28, p. 3911.)

The actual cost of the town border measuring station at Cheyenne was taken and the per cent condition of this measuring station figured in the same manner as compressor stations. (Vol. 28, p. 3912.)

The witness was questioned in regard to office equipment, and in reply he stated that in view of the fact that the present office equipment represented an investment of $3,415, it would be reasonable to assume that the operation of the $900,000 property would require $3,000 worth of office equipment, which was depreciated in the same manner as Mr. Willard's depreciated office equipment in his Exhibit 111. The same applied to automobiles and tools, which were depreciated in accordance with Mr. Willard's figures. (Vol. 28, pp. 3912, 3913.)

The organization expense of the existing company was $3,372. The witness stated that in all probability this item could not be reduced but that an estimate had been taken of $2,000.

The item of general construction expense was based on the general construction expenditures actually incurred in the per cent of the Fort Collins-Cheyenne 6-inch line of $6,542 for 41.06 miles and, using the general construction cost per mile, it was applied to the entire 6-inch line from Arapahoe to Cheyenne. (Vol. 28, pp. 3912-3914.)

The witness was questioned as to what general construction expenditures might be contemplated in the construction of such line, and he testified as follows:

"A. Generally speaking, general construction expenditures will consist of those items of construction costs which the company incurs directly in addition to the purchase of material and the letting of the labor contracts. Such item would include the inspection of the material purchased, usually at the mill before it is shipped, and the inspection of the construction work performed by the labor contractor. In building a line of this

character it would be necessary to have welding inspectors, general inspectors, and men of that specialized training in order to insure the proper carrying out of the labor contract.

"*The Trial Examiner:* Have you completed your answer, Mr. Hancock?

"*The Witness:* Yes, sir.

"Q. Oh, you say that that was all you included in general construction expenditures?

"A. Well, there would be included in the item which I have testified about all of the construction expenditures, the general construction expenditures, which were actually included in laying the Cheyenne line, and I referred to one or two items to illustrate the type of general construction expenditures which would be so included, but I would be unable from any information before me to detail exactly what those actual construction expenditures were.

"Q. Well, then, you wouldn't, in projecting this item in this estimated investment, be able to determine what the items are that go into this $18,092, other than what you say was reflected in the construction of the Greeley line?

"A. No, the Cheyenne line.

"Q. The Cheyenne line?

"A. Yes, sir.

"Q. Well, in your opinion, in preparing this estimate, what would be the items that would go into this $18,092, required in the construction of this proposed line?

"A. My same answer applies to that same question.

"*The Trial Examiner:* Mr. Hancock, I don't just understand yet how you arrive at that figure in the first instance.

"*The Witness:* The $18,092, Mr. Examiner?

"*The Trial Examiner:* Yes.

"*The Witness:* I took the actual general construction expenditures on the Cheyenne 6" line at the time it was laid, which were $6,542 and divided that by that number of miles, approximately 41 miles.

"*The Trial Examiner:* Oh, I see.

"*The Witness:* And got the general construction expenditures per mile of that end of the line and multiplied by the entire line from Arapahoe.

* * * * * *

"Q. Well, I want to know what items of general construction expenditure enter into the total figure of $18,092 which is subsequently depreciated into the figure of $16,690, which items would go into the estimated cost of investment of this proposed line?

"A. As I have previously stated, Mr. Lange, the principal item would be engineering and the services of inspectors and engineers of that kind. There would also be some miscellaneous expense, any automobile expense which the company would and was put to in the construction of the line, would include small items of legal expense, and the miscellaneous office expense which was incurred incident to handling the construction records, carrying on the work in the office such as following up the performance of the labor contract and moving the material to the job, arranging for its shipping and turning over to the labor contractor. Now, those items will constitute the $6,542 applicable to the Cheyenne line.

* * * * * *

"Q. Well, this list of figures that you say were just handed to you, represent what?

"A. The general construction expenditures on the Cheyenne line, 41.06 miles in length.

"Q. Now, can you produce for the record the figures that went into the cost of the Greeley line covering general construction expenditures?

"A. I can, but I should like to make clear again, if I haven't, that such figures are not reflected in any manner or means in my estimate.

"Q. But you state that the figures that you utilized in the making up of your estimate reflect actual cost figures?

"A. That is right, actual cost figures exclusive of the overhead costs such as general construction expenditures.

"Q. Actual cost figures for what construction?

"A. For the Greeley 6-inch line, which unit cost I have adoted for that portion of this independent line to

Cheyenne between Arapahoe and a point near Fort Collins."

(Vol. 28, pp. 3916-3921.)

The working capital figure was derived by Mr. Willard in the same manner by which I derived the working capital necessary for the present company. (Vol. 28, p. 3922.)

With reference to Statement No. 1, Exhibit 118 "Estimated Investment to Serve Cheyenne Only," the "five per cent engineering charge" (relating to that part of the estiinch cost data presented" (relating to that part of the estimate between Arapahoe and Fort Collins); interest during construction was also included in that data; and a portion of interest on excess capacity (Account No. 1021, Item 3) as capitalized on main 10-inch and 8-inch lines and Arvada Compressor Station, but none of such interest as capitalized on 6-inch main line. In the Fort Collins-Cheyenne portion of the Estimated Investment (Statement No. 1) no portion of any of these items was included.

The witness stated:

"It is also my opinion that the construction of the independent 6-inch line to Cheyenne from Arapahoe station as presented on Exhibit No. 118 actually understates what the construction cost would have been on such a line for the reason that the adoption of the Greeley 6-inch construction cost for the 72.497 miles of this independent line, that being the south end extending from Arapahoe station to Fort Collins, understates the construction cost because of the fact that the Greeley 6-inch line has a lower construction cost as actually laid because it was hot enameled throughout, and because the construction conditions on the Greeley branch line are more favorable to low construction costs than would be the case if that line was laid through the irrigated country between Fort Collins and Arapahoe in which country there are considerable portions of irrigated areas requiring special construction procedures."

In the Fort Collins-Cheyenne portion of the "Estimated Investment," the witness stated there is included:

"$6,542 being the general construction expenditure on

the 41.06 miles of 6-inch line extending from Fort Collins to Cheyenne. That results in a unit general construction expenditure of $159.32 per mile. Included in the latter figure is no item covering five per cent New York engineering charge or interest during construction.

* * * * *

"I might, in explaining that answer, call attention to the fact that this type of miscellaneous construction expenditures occurs when a property is going through the initial stages of construction and is not necessarily applicable to later additions to a going property. The initial construction, involving as it did this expenditure of $6,541.87 includes the special types of services, legal expenses, miscellaneous office expenses, consultation with the people who are appraising the wisdom of making the expenditure, and preparing for the initial construction prior to the formation of a complete organization which would later handle many of those same types of problems."

(Vol. 29, pp. 3941-3945.)

Counsel for the Commission asked the witness where on the Company books the overheads just mentioned on the Greeley line appear, and the witness answered, "Job Order 115, which job order reflects direct cost items of $139,570.84. to which is added the five per cent engineering charge, interest during construction and legal and miscellaneous expenses to arrive at the total cost of $151,882.49 which, when divided by the 22.60 miles, produces the unit cost per mile of $6,720.00 which was used in developing the cost of the 6-inch line between Arapahoe and Fort Collins as projected in the independent line study."

The witness stated that to the foregoing total were added actual overheads per mile occurring in the construction of the actual 6-inch line from Fort Collins to Cheyenne; that the total item added under "General Construction Expenditures" was $19,092.00. In addition to that item there was the direct costs of the 6-inch line, 113.557 miles in length, the Loveland compressing station, the Arapahoe compressing station, the Cheyenne measuring station, office equipment, automobiles, tools, organization expense and working capital. (Vol. 29, pp. 3946, 3947.)

(c) *"Calculated Main Line Investment Applicable to Cheyenne."*

The witness was then questioned in regard to the main line investment *(Statement No. 2, Exhibit 118)*, applicable to Cheyenne as shown in Exhibit 118 and testified as follows:

"Q. Now, on the succeeding page you have a calculated main line investment applicable to Cheyenne. What does that page reflect?

"A. This page to which you refer reflects an estimate of that portion of the existing plant and investment in the main line from Arapahoe to Cheyenne, and which is used for the purpose of supplying gas to Cheyenne.

"Q. Now, then, how did you arrive at your percentage investment in dollars applicable to Cheyenne?

"A. I first made a study of the main line, the investment therein, and the portion which was used for the purpose of supplying gas to Cheyenne. In making a study of part of the line used by Cheyenne it is necessary to treat each section of the line separately because Cheyenne makes use of different percentages of the main line from point to point along the main line. Between Arapahoe and Golden branch junction Cheyenne uses 23.904 per cent of the peak day capacity of that line.

"Q. Before we go any farther, I want to ask you this question: This computation on that page is predicated entirely on the peak day capacity estimate?

"A. That is right.

"Q. All right.

"A. Applying that percentage to the investment in that portion of the line results in the $41,879 which has been allocated to the service of Cheyenne and for that short stretch of main line. For that portion of the main line between the Golden branch junction and the Boulder branch junction Cheyenne utilizes 29.319 per cent of the investment, resulting in $61,505 devoted to the use of Cheyenne.

"From the Boulder branch junction to the Brighton branch junction Cheyenne utilizes 33.58 per cent of the investment, this being only a short stretch of line resulting in only $7,735 investment utilized by Cheyenne.

"For that portion of the main line between the Brighton branch junction and the Greeley branch junction, Cheyenne utilizes 35.281 per cent of the line which gives $77,603 devoted to the use of Cheyenne.

"For that portion of the main line between the Greeley branch junction and Fort Collins, Cheyenne utilizes 46.963 per cent of the investment which is $68,673 devoted to the use by Cheyenne.

"For that portion of the line between Fort Collins and the Cement branch, Cheyenne uses 94.600 per cent of the capacity which gives $37,497 devoted to the use of Cheyenne on the peak day.

"For that portion of the line between the Cement branch and Wellington station, Cheyenne utilizes 94.60 per cent of the investment which results in $52,824 that is devoted to the use of Cheyenne; for the remaining section of the main line between Wellington station and Cheyenne, Cheyenne uses 95.948 per cent of the investment, which results in $193,939 devoted to the use of Cheyenne.

"The total of all of the figures which I have read is $541,655 undepreciated; and applying the per cent conditions referred to in previous testimony, I arrive at plant and investment depreciated applicable to Cheyenne of $500,380 for main line investment only.

"Q. Referring back to the question I asked when we began on this particular page, it is my understanding that you applied the peak day demand in Cheyenne and I don't think we followed that through as compared with the main peak day use of the main line. I would like to have a definite explanation as to that portion.

"A. I have used in calculating the portion of the main line devoted to the use at Cheyenne the peak day data applicable to January 18, 1940, and that day was selected because it was the day of the highest peak at Cheyenne.

"Q. All right, now, in your general construction expenditures on that page, where were those figures derived from?

* * * * *

"A. The question is in regard to the $26,957 item?

"*The Trial Examiner:* That is right.

"*The Witness:* Which is the general construction expenditure applicable to Cheyenne?

"*Mr. Lange:* Yes.

"*The Witness:* That is made up of several items on the working sheets as follows:

"The interest capitalized on the 10-inch main line was allocated to the Cheyenne investment in the proportion that use was made of that 10-inch line by Cheyenne, that load being 26.854 per cent and the latter percentage being a combination of the first two percentages which I referred to in previous testimony as follows:

"From the Arapahoe measuring station to the Golden branch junction, 23.904 per cent and from the Golden branch junction to the Boulder branch junction, 29.319, that constituting the entire 10-inch line and in combination producing 26.854 per cent.

"Interest capitalized on the 8-inch main line being treated in the same manner by arriving at the per cent use made of the main line for the purpose of delivering gas to Cheyenne, that per cent being 39.564 per cent, and that also being a combination of the various sections of the 8-inch main line referred to in earlier testimony.

"Interest capitalized on the Arvada station and that in turn being allocated to the Cheyenne line on the percentage use made of Arvada station for delivering gas to Cheyenne, that percentage being the same as the percentage use made of the 10-inch main line, namely, 29.319 per cent—I will correct the last statement which is in error. The percentage use made of the Arvada station is 29.319 per cent but it is not the same as the 10-inch main line figure above referred to. The 29.319 per cent is arrived at by relating the thru-put on the peak day at Arvada station to the peak day requirements of Cheyenne.

* * * * *

"A. The next items are general expense capitalized on 10-inch main line construction, Arvada station construction and 8-inch main line construction, the total amount

of such general expense capitalized being $5,227, and the amount devoted to the use—to the service of Cheyenne, $1,683, which is done by calculating the percentage use made of the various units of property which I mentioned, the 10-inch main line at 26.854 per cent for Cheyenne, Arvada Station 29.319 per cent for Cheyenne, and the 8-inch main line 39.564 per cent, resulting in a weighted average per cent of 32.198 per cent which, applied to the total amount of $5,227 gives $1,683 applicable to Cheyenne service.

"The next and last item is general construction expense on the Fort Collins-Cheyenne line in the amount of $6,542 and that has been allocated to the use of Cheyenne on the basis of the same peak day use previously referred to; namely, 95.5 per cent, resulting in that item devoted to the use of Cheyenne of $6,249.

* * * * * *

"Q. Now, I notice that you have in this calculated main line investment both the compressing stations and those in the course of construction. Do you contemplate the presently operating stations under that first definition?

"A. That is right.

"Q. And your investment figure on that is arrived at in what fashion?

"A. It would be $236,920 referred to on this page as the total compressing station investment exclusive of the new station now approaching completion. The Arvada station has been allocated to the service of Cheyenne on the basis of 29.319 per cent which is arrived at by taking the ratio between the peak day delivery at Cheyenne on January 18, 1940, and the thru-puts through Arvada station on the same day.

"The Wellington station investment used by service of Cheyenne is arrived at in the same manner; namely, by taking the ratio of the peak day at Cheyenne to the Wellington Station thru-put and that percentage is 95.948 per cent. Similarly, the new construction at Arapahoe station has been allocated to the service at Cheyenne on the basis of 29.319 per cent which gives $10,262 of investment devoted to the service at Cheyenne.

"The total of all of these items is the amount shown for the compressing station investment and those plant and investment figures for compressing stations have been applied against them the same per cent conditions referred to in previous testimony as found to exist in November, 1940:

"Q. That is the total of $103,585?

"A. That is correct.

"Q. And now, on the compressing stations in the course of construction, how were you—strike that 'how were you'—how did you apply the percentage applicable to Cheyenne? In other words, in that instance it applies to the equipment and property not yet in use; is that correct?

"A. Just one moment, please, Mr. Lange.

"I included inadvertently in my answer regarding compressing stations, also the station in course of construction; in other words, I included the Arapahoe station along with the two existing stations.

"Q. In that previous total, you mean?

"A. Yes, sir.

"Q. Then this item of $13,102 would come out?

"A. No, I mean that in the figures which I recited before arriving at the $114,931 I referred to the Arapahoe station investment inadvertently.

"Q. I see.

"*The Trial Examiner:* But the figures, Mr. Hancock, for the Arvada station and the Wellington station are in the—

"*The Witness:* In the record as shown and will add to the $114,931.

"*The Trial Examiner:* Yes.

"Q. Then on this other item of compressing stations in course of construction, how did you arrive at the estimate of this applicable use to Cheyenne in distinction to those stations that are already in operation?

"A. I used the same percentage figure of 29.319 per cent which is the use made by the Arvada station for service to Cheyenne.

"The reason I did that was that the Arapahoe station will handle the same percentage of gas for Cheyenne that the Arvada station does.

"Q. In that one respect, of course, that is an estimated figure entirely, not derived from any actual figure?

"A. It is partly both. The figure is based on actual construction costs at Arapahoe as of September 30, 1940, of $32,411, and an estimate of commitments for the balance of 1940 required to complete the Arapahoe station of $9,688.

"Q. But the station itself, of course, is not yet in operation?

"A. I am not sure whether it went into operation yesterday or not. There was some talk of it when the cold weather hit.

"Q. I mean, in this exhibit it was prepared under the assumption at the time that the station was not in fact in operation?

"A. That is correct. It was not in operation at the time the exhibit was prepared."

(Vol. 28, pp. 3923-3934.)

The item of compressing stations in course of construction under "Calculated Main Line Investment Applicable to Cheyenne" is composed of component parts as follows: the Arapahoe station commitments for the balance of 1940, amounting to $9,688.00. By "balance of 1940" he meant subsequent to September 30, 1940.

It also includes the cost of the additional 600-horsepower unit which is scheduled for erection at Arapahoe in 1941, that cost being $35,000, which, added to the foregoing figure of $9,688, gives $44,688. The portion of those two items applicable to Cheyenne has been arrived at by taking the percentage use made of these facilities described in yesterday's testimony and calculating the portion of those investments applicable to Cheyenne, making a total of $13,102 applicable to Cheyenne.

The actual investment of $2,217 in the Cheyenne measuring station was taken. The same measure was applied to telephone lines, office equipment, automobiles and tools,

and the basis of depreciation on these items was as computed by Mr. Willard in Exhibit 111. (Vol. 29, p. 3948.)

47.38 per cent of the total actual organization expense of $2,472 was apportioned to Cheyenne, resulting in $1,644 for Cheyenne. 47.348 per cent is the weighted average per cent use made by Cheyenne of all the investment items except office equipment, automobiles, tools and organization expense. The item of $451,877 included miscellaneous branch lines, meters, regulators and other non-applicable investments which had no relation to the handling of gas for Cheyenne. It has no relation to the percentage just mentioned. (Vol. 29, pp. 3949-3950.) This item represents property used and useful in connection with service other than the Cheyenne service, and no portion of the same is related to Cheyenne. (Vol. 29, p. 3952.)

The witness stated that a certain amount of the $45,490 working capital computed by Mr. Willard in Exhibit 111 was apportioned to Cheyenne. This was apportioned to Cheyenne "taking the plant and investment figure of $1,894,421.54 appearing on Statement 2 of Mr. Willard's Exhibit 111 and relating it to the investment applicable to Cheyenne, including all of the items other than working capital, that investment bearing the percentage of 36.053 to the total investment, and I have apportioned the working capital on the basis of 36.053 of the total working capital of $45,490." (Vol. 29, p. 3953.)

The witness stated that in making the computation there is a direct relation between the dollar figures and the volume figures. The apportionment of the main line investment in each of the sections of line is apportioned to Cheyenne on the basis of use of that line in terms of peak-day relation, the peak day utilized being January 18, 1940. If the computation was made on the basis of annual volume deliveries, it would produce a different result because the load factor at Cheyenne differs from the over-all system load factor. Cheyenne uses a greater percentage of the capacity in relation to annual deliveries than does the average system on peak days because a greater percentage of the business is house heating in character. This seems to be the only logical approach to such an allocation, and in connection with this the witness testified as follows:

"Q. Is it not a fact, Mr. Hancock, for the purpose of satisfying the priority demands of this Cheyenne service that the industrials were cut off last night on this line?

"A. That is true.

"Q. Including the Colorado Portland Cement Company?

"A. That is true. The peak day requirement is the determining factor. If Cheyenne needs so many million feet of gas on the peak day, that portion of the system's capacity has to be dedicated to that capacity and can be sold to no one else.

"Q. That was done last night?

"A. Yes."

(Vol. 29, pp. 3956-3957.)

The witness stated that the total volume of gas delivered to Cheyenne in 1939 was 494,058,000, and the total system's deliveries was 3,332,446,000; which figures are found in Exhibit 115. Percentage as between these two figures is approximately 14.9. These figures are computed on the basis of the contract pressure base. (Vol. 29, pp. 3957, 3958.) The peak-day figures used, however, in the allocated investment to Cheyenne were converted to a common pressure base of 12.9. (Vol. 29, p. 3959.)

(d) *Allocation Factors Applied to Operation and Maintenance, Sales for Resale, Cheyenne, Wyoming.*

The witness HANCOCK was cross-examined in connection with "Earnings Statement, Sales for Resale at Cheyenne, 1939 to 1945," and stated that this reflected the actual sales for 1939 and ten months of 1940. The sales estimates appearing on Statement No. 3 of Exhibit 118 are identical with the Cheyenne sales figures which make up the total sales percentage in Exhibit 115, and the projections were arrived at in the same manner as testified to in relation to Exhibit 115. This also applies to the gross earnings from operation. (Vol. 29, pp. 3960, 3961.)

The witness stated that "the maintenance was apportioned to Cheyenne in the ratio of 50.5 per cent, that being the ration of the Cheyenne main line investment, or rather, to that portion of the main line investment which is used

by Cheyenne, to the total main line investment resulting in a maintenance allocation to Cheyenne of $1,161." In computing this ratio no consideration was given to volume. The cost of maintenance on these facilities would be independent of volume. (Vol. 29, pp. 3961, 3962.)

The witness testified:

"The taxes were apportioned on the basis of the relation between the investment allocated to Cheyenne and less organization and interest charges to the total plant and investment account less organization and interest charges, that relation being 36.8 per cent for the year 1939 and running substantially the same figure to the end of the estimate in 1945."

(Vol. 29, p. 3962.)

The tax figure does not include the Colorado State income tax which was included in the over-all study for the reason that no income tax is applicable to Cheyenne as a State income tax. It does not include Federal income tax.

The bulk of the tax is the real and personal tax. (Vol. 29, p. 3963.)

In response to questioning, the witness stated that this entire computation does not assume any change in the rate structure. (Vol. 29, p. 3964.)

The witness testified that in his opinion additional compressing facilities would be required at some time during the period estimated, but that this was not considered in making the computation and is not reflected in the statement.

"Q. I don't believe I got from you the method of allocation employed by you in Exhibit No. 148 on the transmission operation expense.

"A. One of the items entering into this transmission operating expense is the cost of company used gas.

"Q. That is the item you have increased in each instance in your exhibit?

"A. That is correct. The total cost of that item appears on the over-all cost estimate included in Exhibit No. 115. For the year 1939 that is $4,436. That amount

has been allocated to Cheyenne service on the basis of the relation between the volume of gas to Cheyenne to the total sales volume, that resulting in an allocated figure of $1,231, for Cheyenne.

* * * * *

"A. I have not used the direct ratio of sales volume which would be 14.8 per cent. I believe I made a hurried calculation a few minutes ago and stated that it was 14.9 per cent, but I have used a figure which reflects not only the volume of gas delivered to Cheyenne in relation to total volumes but to the fact that additional pumping is required for the Cheyenne gas; that is, additional over and above that required for other gas, which results in an allocation to Cheyenne of company used gas in the amount of 28.4 per cent, which results in the cost of company used gas for Cheyenne service of $1,231, which appears on Sheet 4 of Exhibit No. 118 for the year 1939 under the caption 'Gas Used by Company-Credit.' It is also included in the purchased gas company expense and also included in transmission operation expense.

"*Mr. McCreery:* The additional pumping required to which you refer is the use of the Wellington station for the resale gas at Cheyenne and the small amount in proportion at Fort Warren?

"*The Witness:* That is true. However, while all gas at Cheyenne must be pumped three times, or the facilities for pumping it three times must stand by and be ready to pump, other sales are pumped either once or twice depending upon the location of those sales.

"The other items of operating expense are treated as follows: Mains operation as a total expense for the year 1939 of $4,572. That has been apportioned to Cheyenne service on the basis of the relative investment in the pipe lines serving Cheyenne to the total pipe line investment, that relation being 50.5 per cent, which results in mains operation expense for the year 1939 apportioned to Cheyenne in the amount of $2,310.

"The remaining item of operating expense is measuring station operation which for the year 1939 was $6,235.

That has been apportioned to Cheyenne in the ratio of the number of stations devoted to Cheyenne service, which is one, to the total number of measuring stations of the company which is 38, the relation there being 2.6 per cent, which results in an apportionment to Cheyenne for measuring station operation of $214.

"The total of the foregoing items apportioned to Cheyenne for the year 1939 for transmission operating expense is $8,844, which for purposes of the estimate I have rounded to $8,840.

"Q. When you speak of total volumes of sales, do you include in that all classes of direct resale and all sales of the company?

"A. I do.

"Q. In your projection of that item for the future you proceed in the same fashion as you did on the previous items?

"A. I proceeded in the same fashion with reference to the method of allocation, using as the base amount in each instance the total expense for transmission operation appearing in Exhibit No. 115, and arriving at the apportioned amount for Cheyenne appearing on page 4 in Exhibit No. 118.

"You have assumed the load factor will not change during that period?

"A. The load factor will not undergo any radical change.

"Q. Well, on what assumed load factor did you proceed?

"A. 44.67 per cent for Cheyenne.

"Q. Is that the assumed or actual?

"A. Actual.

• • • • •

"Q. And you have assumed no appreciable change in that, as I understand you?

"A. If the load factor at Cheyenne changes, there will be coincidental changes in load factor on the remaining portions of the system and I do not believe that the ratio will materially change.

"Q. Oh, you relate that to the coincidental changes on the whole system or absence of any coincidental changes on the whole system?

"A. The load factor at Cheyenne is 44.67 per cent.

"Q. Yes.

"A. The load factor on the entire system will vary between 55 and 60 per cent; if the load factor at Cheyenne increases or decreases, it is my opinion that the load factor on the system as a whole will change somewhere near a corresponding amount.

"Q. Well, that is based on what factors?

"A. It is based on the factors which cause the load factor to be what it is, namely, the relation between the average day's consumption during the year to the peak day's consumption, the average day's consumption being, of course, much lower than the peak day's consumption due to the house heating demands in colder weather. If the company only served gas for cooking and water heating purposes, the load factor would be extremely high, but the house heating load which results from severe weather on a few days out of the winter results in a lower load factor."

(Vol. 29, pp. 3968-3972.)

In connection with the method of allocation employed on general expenses, other, the witness testified as follows:

"A. The general expenses, other, is apportioned on the basis of volume sale for resale at Cheyenne to the total volume sales for resale of the company, which is 29 per cent in 1939, and gradually increasing to 1945 to 29.6 per cent—not much change. I worked it out in that instance on both the volume basis and on the revenue basis, the revenue basis being a slightly higher percentage starting in 1939 with 31.4 and running fairly uniformly, ending in 1945, on this particular sheet, with 31.3 per cent. However, as I before stated, I have used the volume basis.

"Q. The total volume of resale only?

"A. That is correct.

"*The Trial Examiner:* Mr. Hancock, if you add to that total volume for resale during the year 1939, the

amount of sales to public authorities which is shown in Exhibit 115 as 36,313 M. c. f., does that increase the percentage figure to any appreciable extent?

"*The Witness:* The public authority sale is a very small percentage and would not have very much effect.

"*The Trial Examiner:* In other words, your Cheyenne sales for resale would still constitute approximately the figure you just stated?

"*The Witness:* Approximately, yes, sir. I have on a sheet here that relation worked out if it would be of any assistance.

"*The Trial Examiner:* I would like to have you state it for the record if you have it.

"*The Witness:* I have it worked out for the year 1939 and 1940.

"*The Trial Examiner:* Well, just for the year 1939.

"*The Witness:* The per cent of total sales for resale of total sales is 51.2 per cent, and the total sales to public authorities is 1.1 per cent of total sales. The total sales to industrial and main line customers is 47.7 per cent. Those are on a volume basis. I can give it to you on a revenue basis if you would like it.

"*The Trial Examiner:* No, I think that—of course, what I had reference to, Mr. Hancock, was the total of your sales for resale plus the sale to public authorities and the per cent of that figure that the total sales to Cheyenne constitute for the year 1939.

"*The Witness:* I can give you that in just a second.

"*The Trial Examiner:* In other words, according to my calculation, you have 1,742,636 M. c. f. sales for resale including public authorities.

"*The Witness:* That is correct.

"*The Trial Examiner:* During the year 1939.

"*The Witness:* And the sale to Cheyenne for all purposes in 1939 being 494,058 M. c. f., is approximately 28.5

per cent of the total sales for resale and to public authorities."

(Vol. 29, pp. 3974-3976.

On redirect examination the witness was asked if there is a difference in the cost of delivery of gas to customers depending upon location, character of use, etc., and his answers were as follows:

"A. There is a difference. Taking the question as to location first, I think I can illustrate that by what might be called an extreme example. If we had a pipe line a hundred miles long with a customer on the end of it which used, for example, half the gas and the customer using the other half of the gas was only one mile from the source of supply, obviously the investment required to deliver half of the gas to the nearby customer would not be as great as the investment required to deliver the gas to the most remote customer; so location is a very vital element in determining the investment, irrespective of volumes.

"Q. In the system of the Colorado-Wyoming Gas Company, the resale gas at Cheyenne is a delivery to the most remote customers, is it not?

"A. It is.

"Q. Now, you may proceed.

"A. As to the other elements which you mention involving the nature of use, which again is a load factor proposition, that also is important. If I may use another example, if a customer uses one thousand feet of gas a day for 365 days a year, the cost of making that delivery will be one thing because it will only require facilities to handle one thousand cubic feet per day, but if, to use an extreme example again, the other customer used 365,000 feet of gas in one day and no gas on the other days, the cost of making that delivery would, of course, be very high on a per-thousand cubic foot basis.

"Q. Which represents here again the importance of peak demands in connection with the facilities furnished by a company to supply those peak demands, aside from total volume?

"A. That is true. In the example which I have just

stated, the customer using 365,000 feet of gas in the one day has to have facilities from the source of supply to his location which will handle that volume of gas and with the obligation of delivering that volume of gas to him on the peak day, those facilities can be dedicated for no other use on the peak day, but must be reserved for the use of this illustrative customer that I have referred to.

"Q. And in the illustration, each of the two customers at the two extremes were using the same annual volume of gas?

"A. That is true."

(Vol. 29, pp. 3977-3979.)

Recross Examination.

By Mr. Lange:

Q. Mr. Hancock, this exhibit, of course, is based purely on an estimated or assumed situation, isn't it?

A. It is assumed on an estimate which has been worked out to reflect the items referred to in the foregoing statement

Q. Yes, but the estimated investment right at the outset of your exhibit, that projects and assumes a 6-inch main line from Arapahoe to Cheyenne purely as an assumption?

A. I would hardly call it purely an assumption. It is the result of an engineering calculation.

Q. I mean, it is purely an assumption as related to actuality in connection with this line.

A. That is true, but I would say that it was not an actuality.

Q. Yes. That estimated investment that you set up on that page which begins with an assumed 6-inch main line, Arapahoe to Cheyenne, will you explain in what fashion you arrived at the estimate of the items on that page? Take first the 6-inch main line.

A. The 6-inch main line from Arapahoe to Cheyenne is based on two unit cost figures for the construction of said 6-inch line. The 41.06 miles which now actually exist has been included at the actual plant and investment cost of approximately $7,248 per mile.

Q. That is the installed cost?

A. That is right.

Q. Do you assume the same installation conditions and situations along the entire line as that on the 6-inch line presently obtaining?

A. No, sir.

Q. Well, in what way do you determine the different situations that you would be confronted with?

A. For the balance of the 6-inch main line extending south from the existing 6-inch line at Fort Collins, and which balance is 72.497 miles, I have used in this estimate a cost of $6,720 which is the cost of the Greeley 6-inch line.

Mr. McCreery: Per mile?

A. The Witness: Per mile.

By Mr. Lange:

Q. And you are proceeding, then, in that same fashion with reference to the 10-inch section?

A. There is no 10-inch section. The 6-inch line extends entirely from Arapahoe station to Cheyenne.

Q. I mean in lieu of that portion that is now ten inches, what did you do with that?

A. The total 6-inch line that I have testified to as to cost covers the entire distance.

Q. Well, this additional stretch of 6-inch line would be substituted from Fort Collins southward to Arapahoe station the estimated cost of that is not computable in figures of book cost of this company's property?

A. The method which I used, which I am not sure would be called book cost or not, is as stated. The unit cost of constructing the Greeley 6-inch line—

Mr. McCreery: In what year, Mr. Hancock?

The Witness: 1930.

By Mr. Lange:

Q. Oh, you are assuming that this line would be constructed in this fashion as a 6-inch main line from Arapahoe to Cheyenne in 1930?

A. That is true. Cheyenne received its gas from the Wellington field in the early years and at the time that the construction south was necessary we have assumed that the unit prices prevailing at that time would be applicable to the extension of the 6-inch main line to Arapahoe station.

Q. As of 1930?

A. Yes, sir.

Q. Well, now, let's see. As of 1930 the Wellington field was still in full production, wasn't it?

By the way, do you have the withdrawals from the Wellington field, Mr. Hancock?

A. Yes, sir

Q. Will you give us those from the beginning of the time that they were taken over by this company?

A. The purchases of Colorado-Wyoming Gas Company from the Continental Oil Company at the Wellington field are as follows:

In 1926—

Q. Let me interrupt you if I may, please.

A. Yes.

Q. Do they begin in 1926 or is there any earlier delivery?

A. I am reasonably sure it was in 1926.

Q. I see.

A. My report on the pipe line inspections indicate that the first piece of 6-inch line between the Wellington field and Fort Collins was laid in November 1925, which would be very late in 1925, and I am not sure there were any deliveries in 1925.

Q. All right, then, in 1926, give the total volumes and then the delivery points, or the destination of that gas for each of those years. Do you just have the total volume?

A. I don't think anybody could tell you the destination.

Q. Well, at that time there weren't any deliveries made from any other field, were there?

A. It could be done during that period.

Q. That is what I mean.

A. Yes, sir.

For the year 1926 the volume is 263,912 Mcf. and the deliveries were made to the distributing company at Fort Collins and a small amount to miscellaneous line customers.

Q. And do you have the volume on each of those deliveries?

A. I do, but I read them into the record this morning.

Q. For 1926?

A. Yes, sir.

Q. All right.

A. For 1927 the purchase from Continental Oil Company was 620,545 Mcf. and deliveries were made to the distributing company at Cheyenne and Fort Collins and to the Colorado Portland Cement Company and to miscellaneous line customers.

In 1928 the purchases from Continental Oil Company were 2,254,599 Mcf. and deliveries were to the distributing companies at Cheyenne, Fort Collins, to the Colorado Portland Cement Company, and to miscellaneous main line customers.

In 1929 the purchases from Continental Oil Company were 1,718,642 Mcf., and in that year purchases were also made from Colorado Interstate Gas Company.

Mr. McCreery: That being the first year of such purchases?

The Witness: It was.

Mr. Lange: 1929?

The Witness: 1929.

The Trial Examiner: Do you have the amount of the purchases of gas from Colorado Interstate Gas Company?

The Witness: Yes, sir, I do.

In that year it was 33,943 Mcf.

By Mr. Lange:

Q. Mr. Hancock, did any of the 1929 purchase of gas from Colorado Interstate Gas Company go as far as Fort Collins?

A. That I am unable to say. Generally speaking, I wouldn't expect that it did but there might have been peak day conditions that would cause some doubt about it, the total purchases from Colorado Interstate Gas Company being so small, however, that I would say it was unlikely that it did.

Q. Unlikely?

(Vol. 28, pp. 3892-3897.)

* * * * *

Q. And you have assumed in connection with this investment that if a company were to construct a 6-inch main line from Arapahoe to Cheyenne that this would in your opinion be the estimated investment in such a line?

A. Yes.

Q. Both the plant and investment as well as the depreciated cost of such?

A. Yes.

Q. The depreciated cost of which would be $833,173?

A. That is right.

Q. As of the year 1930?

A. Is that a question?

Q. Yes.

A. I wouldn't say the depreciation would be the—that the depreciated plant and investment would be that amount as of the year 1930, but if these lines had been built as described in these years covered by this construction period, I believe that would closely represent the present depreciated plant and investment account.

Q. Of course, such a line does not in fact exist at the present time?

A. By no means.

Q. And you are not contemplating the construction of such a line for the company, are you, Mr. Hancock?

A. Not to my knowledge.

Q. Now, is the company contemplating the construction of such a line?

A. Not to my knowledge.

(Vol. 28, pp. 3922-3923.)

* * * * *

The interest capitalized on the 10-inch main line was allocated to the Cheyenne investment in the proportion that use was made of that 10-inch line by Cheyenne, that load being 26.854 per cent, and the latter percentage being a combination of the first two percentages which I referred to in previous testimony as follows:

From the Arapahoe measuring station to the Golden branch junction, 23.904 per cent and from the Golden branch junction to the Boulder branch junction, 29.319, that constituting the entire 10-inch line and in combination producing 26.854 per cent.

Interest capitalized on the 8-inch main line being treated in the same manner by arriving at the per cent use made of the main line for the purpose of delivering gas to Cheyenne, that per cent being 39.564 per cent, and that also being a combination of the various sections of the 8-inch main line referred to in earlier testimony.

Interest capitalized on the Arvada station and that in turn being allocated to the Cheyenne line on the percentage use made of Arvada station for delivering gas to Cheyenne, that percentage being the same as the percentage use made of the 10-inch main line, namely, 29.319 per cent—I will correct the last statement which is in error. The percentage use made of the Arvada station is 29.319 per cent but it is not the same as the 10-inch main line figure above referred to. The 29.319 per cent is arrived at by relating the thru-put on the peak day at Arvada station to the peak-day requirements of Cheyenne.

The next item is general expense capitalized on the 10-inch main line construction, the Arvada station construction, and on the 8-inch main line construction—

By Mr. Lange:

Q. Right before we get into that, Mr. Hancock, these items of interest capitalized that you have just mentioned, they are out of that same item of interest on excess capacity that was set up in Mr. Willard's exhibit, Exhibit No. 111?

A. I am afraid I can't identify that.

Q. In Account 1021 as he has it set up in that exhibit?

A. I am sorry, Mr. Lange, I am not sufficiently familiar with that exhibit to state that.

Q. Do you recall Mr. Willard's testimony on cross examination in connection with that item of interest on excess capacity?

A. No, sir, I was not here at the time.

Q. You were not here at that time?

A. No, sir.

Q. Then you don't know whether that item interest capitalized that you have used is a part of or that same account in 1021 which included interest on excess capacity as set up in Mr. Willard's exhibit No. 111?

A. No, sir, I do not, but to identify the amount I might

say that the interest capitalized to which I referred constituting the total of the four items referred to is $56,884 and the amount allocated to the Cheyenne service is $19,025.

Q. Well, from what account of the company's books is that item computed?

A. These figures were furnished to me by Mr. Willard in response to my request for the information.

Q. Well, do you know—or, rather, were you informed whether they are derived out of Account 1021, General Construction Expenditures, as it appears in Exhibit 111 of Mr. Willard's?

A. No, sir.

Q. Will you ascertain that, making a note of that?

A. Yes, sir, I will.

Q. So in the fashion that you stated you arrived at this depreciated figure of $24,868 applicable to Cheyenne under the item of construction expenditures?

A. I have only—

Q. You haven't completed that?

A. I have only referred to part of the items that go to make up that total. The part which I have completed testimony on totals $19,025.

Q. Oh, yes.

A. The next items are general expense capitalized on 10-inch main line construction, Arvada station construction, and 8-inch main line construction, the total amount of such general expense capitalized being $5,227, and the amount devoted to the use—to the service of Cheyenne, $1,683 which is done by calculating the per centage use made of the various units of property which I mentioned, the 10-inch main line at 26,854 per cent for Cheyenne, Aryada Station 29.319 per cent for Cheyenne, and the 8-inch main line 39.564 per cent, resulting in a weighted average per cent of 32.198 per cent which, applied to the total amount of $5,227 gives $1,683 applicable to Cheyenne service.

The next and last item is general construction expense on the Fort Collins-Cheyenne line in the amount of $6,542 and that has been allocated to the use of Cheyenne on the basis of the same peak day use previously referred to; namely, 95.5 per cent, resulting in that item devoted to the use of Cheyenne of $6,249.

Adding the foregoing items gives $26,915.

Q. And that item depreciated in what fashion gives you the depreciated figure of $24,868?

A. By applying the per cent condition applicable to the foregoing items, I arrive at the depreciated plant and investment for that item of $24,600—strike that—$24,868.

Q. Now, I notice that you have in this calculated main line investment both the compressing stations and those in the course of construction. Do you contemplate the presently operating stations under that first definition?

A. That is right.

Q. And your investment figure on that is arrived at in what fashion?

A. It would be $236,920 referred to on this page as the total compressing station investment exclusive of the new station now approaching completion. The Arvada station has been allocated to the service of Cheyenne on the basis of 29.319 per cent which is arrived at by taking the ratio between the peak day delivery at Cheyenne on January 18, 1940 and the thru-puts through Arvada station on the same day.

The Wellington station investment used by service of Cheyenne is arrived at in the same manner; namely, by taking the ratio of the peak day at Cheyenne to the Wellington station thru-put and that percentage is 95.948 per cent. Similarly, the new construction at Arapahoe station has been allocated to the service at Cheyenne on the basis of 29.319 per cent which gives $10,262 of investment devoted to the service at Cheyenne.

The total of all of these items is the amount shown for the compressing station investment and those plant and investment figures for compressing stations have had applied against them the same per cent conditions referred to in previous testimony as found to exist in November 1940.

Q. That is the total of $103,585?

A. That is correct.

Q. And, now, on the compressing stations in the course of construction, how were you—strike out "how were you"—how did you apply the percentage applicable to Cheyenne? In other words, in that instance it applies to the equipment and property not yet in use; is that correct?

A. Just one moment, please, Mr. Lange.

I included inadvertently in my answer regarding compressing stations, also the station in course of construction; in other words, I included the Arapahoe station along with the two existing stations.

Q. In that previous total, you mean?

A. Yes, sir.

Q. Then this item of $13,102 would come out?

A. No, I mean that in the figures which I recited before arriving at the $114,931, I referred to the Arapahoe station investment inadvertently.

Q. I see.

The Trial Examiner: But the figures, Mr. Hancock, for the Arvada station and the Wellington station are in the—

The Witness: In the record as shown and will add to the $114,931.

The Trial Examiner: Yes.

By Mr. Lange:

Q. Then on this other item of compressing stations in course of construction, how did you arrive at the estimate of this applicable use to Cheyenne in distinction to those stations that are already in operation?

A. I used the same percentage figure of 29.319 per cent which is the use made by the Arvada station for service to Cheyenne.

The reason I did that was that the Arapahoe station will handle the same percentage of gas for Cheyenne that the Arvada station does.

Q. In that one respect, of course, that is an estimated figure entirely, not derived from any actual figure?

A. It is partly both. The figure is based on actual construction costs at Arapahoe as of September 30, 1940 of $32,411, and an estimate of commitments for the balance of 1940 required to complete the Arapahoe station of $9,688.

Q. But the station itself, of course, is not yet in operation?

A. I am not sure whether it went into operation yesterday or not. There was some talk of it when the cold weather hit.

Q. I mean, in this exhibit it was prepared under the as-

sumption at the time that the station was not in fact in operation.

A. That is correct. It was not in operation at the time the exhibit was prepared.

(Vol. 28, pp. 3927-3934.)

* * * * *

Q. Mr. Hancock, yesterday counsel for the Commission asked for certain information, some of which perhaps you have available at this time in answer to the inquiries made then. Will you please proceed?

A. Yes. Mr. Lange inquired if the five per cent engineering charge was included in the Greeley 6-inch cost data presented and the answer is that it was so included.

The inquiry was also made if interest during construction was included in the Greeley line cost data and the answer is that it was included.

The inquiry was also made if the item of $56,884, being the interest capitalized on the main line and referred to in my testimony on December 12, was included in Account No. 1021 as shown in Mr. Willard's Exhibit No. 111. The answer is yes, and included in the $56,884 just referred to is interest capitalized on the 10-inch main line, $26,076; interest capitalized on the 8-inch main line, $29,189; and interest capitalized on Aryada station, $1,619, totaling $56,884, and not including therefor any interest capitalized on the 6-inch main line.

Q. Included in the general construction overhead cost referred to as a basis of computing the cost of the independent 6-inch line for Cheyenne, only—that sheet is headed "Estimated Investment," is it not, Mr. Hancock?

A. That is true, being Sheet 2 of Exhibit No. 118.

In the testimony of yesterday the general construction overhead expenditure—

Q. I believe I interrupted your answer with respect to that first sheet.

A. of $6,542 being the general construction expenditure on the 41.06 miles of 6-inch line extending from Fort Collins to Cheyenne. That results in a unit general construction expenditure of $159.32 per mile. Included in the latter figure

is no item covering five per cent New York engineering charge or interest during construction. There is included, however, two minor items as follows:

An interest charge of $486.31 and a direct engineering charge of $101.82. Those items of interest and engineering are distinct from the five per cent New York engineering and interest during construction previously testified to as being included in the unit construction cost as distinct from the miscellaneous construction expenditures covered by this item. It is my opinion that there is no duplication of New York five per cent engineering charge or interest during construction in this calculation; and as testified previously, it is also my opinion that the construction of the independent 6-inch line to Cheyenne from Arapahoe station as presented on Sheet 2 of Exhibit No. 118 actually understates what the construction cost would have been on such a line for the reason that the adoption of the Greeley 6-inch construction cost for the 72.497 miles of this independent line, that being the south end extending from Arapahoe station to Fort Collins, understates the construction cost because of the fact that the Greeley 6-inch line has a lower construction cost as actually laid because it was not hot enameled throughout, and because the construction conditions on the Greeley branch line are more favorable to low construction costs than would be the case if that line was laid through the irrigated country between Fort Collins and Arapahoe in which country there are considerable portions of irrigated areas requiring special construction procedures.

Q. For the purpose of a little further identification, referring to Exhibit No. 112, was there any proportion of the interest included in Account 1021 therein referred to included in the estimated investment shown on Sheet 2 of Exhibit No. 118?

A. The sheet in Exhibit 112 contains the same 6,541.87-dollar item which I have just referred to and it is that item which contains the inconsequential interest actually paid and direct engineering charges paid, but which does not include the five per cent New York engineering charge and the complete interest during construction which was later reflected into the Greeley line but not reflected during the construction period 1925 and 1926 when the Fort Collins-Cheyenne line was constructed.

I might, in explaining that answer, call attention to the fact that this type of miscellaneous construction expenditures occurs when a property is going through the initial stages of construction and is not necessarily applicable to later additions to a going property. The initial construction, involving as it did this expenditure of $6,541.87 includes the special types of services, legal expenses, miscellaneous office expenses, consultation with the people who are appraising the wisdom of making the expenditure, and preparing for the initial construction prior to the formation of a complete organization which would later handle many of those same types of problems.

Q. Going a little further, in Item 3 in Exhibit 112, is set forth the figure of $79,362.52. In this estimated investment, is any portion of that figure reflected in such estimated investment?

A. It is not reflected in the cost of the independent line to Cheyenne.

Q. Is it reflected in the tabulation set forth on Sheet 2 of Exhibit 118 under the heading "Estimated Investments"?

A. May I have that question, please?

(The question referred to was read by the reporter, as set forth above.

The Witness: It is not included in that figure but is included in the apportionment to the extent that the items applied to the apportionment.

(Vol. 29, pp. 3941-3945.)

• • • • •

Recross Examination.

By Mr. Lange:

Q. Has this company proceeded in fixing its rates on that basis?

A. No, but I have proceeded in fixing the costs on that basis.

(Vol. 29, p. 3979.)

• • • • •

III. REVISION OF EXHIBITS 117 AND 118 (EX. 245).

Mr. J. L. WILLARD, in connection with Exhibit 245 (Appendix This Record), entitled: "Revised Exhibit No. 111, Plant; Revised Exhibit No. 115, Earnings; Revised Exhibit No. 117, Plant 'Sales for Resale'; Revised Exhibit No. 117, Earnings Sales for Resale'; Revised Exhibit No. 118, Plant 'Sales for Resale—Cheyenne'; Revised Exhibit No. 118, Earnings 'Sales for Resale—Cheyenne,' Years 1939-1945" (Vol. 83, p. 12,440), testified:

* * * * *

"A. This exhibit contains revised data previously submitted in Exhibits Nos. 111, 115, 117 and 118.

"The tabulations herein have been computed in the identical manner and method as in the original exhibits. They are presented only for the purpose of reflecting the effect of certain eliminations from the original figures and are not to be construed as a recognition that the eliminations are justified. Net additions to investment between September 30, 1940 and December 31, 1940 are also included.

"The eliminations reflected in revised Statements Nos. 1 and 2 of Exhibit 111 are as follows:

"(1) Engineering charge of 5 per cent in the amount of $82,792.57 has been deducted from the various accounts affected (Exhibit 199, Entry 202).

"(2) Account 1021 has been credited with $51,887.25 which is the difference between the total interest capitalized on non-utilized facilities $79,362.52 and the amount of interest calculated in Exhibit No. 244, to-wit: $27,475.27 (Exhibit 199, Entry 200).

"(3) Account 1013 has been credited with $2,844.90 'cash discount' as described in Entry No. 204 of Exhibit No. 199.

"(4) Account 1014 has been charged with an amount of $3,278.54. This amount is the net result of entries 213, 214 and 215, and 216 of Exhibit No. 199.

"(5) Account 1014 has been credited $2,111.24. This amount is reflected as a part of Entry 218 of Exhibit 199.

"(6) Account 1014 has been credited $1,007.31. This amount is described in Entry No. 219 of Exhibit 199.

"The revisions to Exhibit 115, 117 and 118 reflect a redistribution of total investment as revised in Exhibit 111, to plant applicable to 'Total Sales for Resale' and 'Sales for Resale at Cheyenne'."

(Vol. 83, pp. 12,440-12,442.) (See Vol. 85, pp. 12,831-12,835, 12,837-12,839.)

(a) *Plant Investment, Overheads and Working Capital—Allocation to "Sales For Resale."*

In accordance with the principles and methods of allocation applicable to the operations of Colorado-Wyoming Company, as next hereinbefore abstracted, "the calculated total depreciated investment of the Company presently devoted to service of the 'sales for resale' customers, (the primary obligation and business of the Company) was determined, in general, by applying the peak-day demand of such customers to the total plant capacity of the Company. The result is the investment used for total sales for resale" (Vol. 27, p. 3800).

Such investment *before revision* is summarized as follows:

"*Plant and Investment.*

	Total	Depreciated
Main Lines	$1138178	$1054967
Compressing Stations	239249	219294
Branch Lines and All Other Miscellaneous Property	516995	473604
Sub Total	$1894422	$1747865
Compressing Station Additions	44688	44688
Working Capital	45490	45490
Sub Total	$ 90178	$ 90178
Total	$1984600	$1838043
Investment Used By Industrial and Public Authority Customers	106952	90551
Investment Used For Total Sales For Resale	$1877648	$1747492"

(Ex. 117, Statement No. 1, Appendix.)

As hereinbefore abstracted, certain identified items in the "Calculated Total Investment Applicable to Total Sales for Resale" (Ex. 117) are eliminated therefrom as well as from Exhibit 111, Statements Nos. 1 and 2 (See Appendix) (Vol. 85, pp. 12,832-12,835). Such eliminations are reflected in Company Exhibit 245, Statement No. 2; "Revised Statement No. 1, Exhibit No. 111"; Statement No. 3, "Revised Statement No. 2, Exhibit No. 111"; and Statement No. 5, "Calculated Total Investment Applicable to Total Sales for Resale, Revised Statement No. 1, Exhibit No. 117" of said exhibit.

The result of such revisions, reflected in Exhibit 245, is summarized as follows:

"Plant and Investment."

	Total	Depreciated
Main Lines	$1057233	$ 980066
Compressor Stations	235054	216598
Branch Lines and All Other Miscellaneous Property	470163	430541
Sub Total	$1762450	$1627205
Compressor Station Additions	37477	37477
Working Capital	45490	45490
Sub Total	$ 82967	$ 82967
Total	$1845417	$1710172
Invesment Used by Industrial and Public Authority Customers	$ 98222	$ 82903
Investment Used for Total Sales for Resale	$1747195	$1627269

(Ex. 245, Statement No. 5, Appendix.)

The investment applicable to all "Sales for Resale," as depreciated in accordance with present per cent condition as found and determined from observation, inspection and examination (Ex. 107, 108, 109, 110, 111, Appendix), is the sum of $1,627,269.

(b) *Plant Investment Overheads and Working Capital—Allocation to "Sales For Resale," Cheyenne, Wyoming.*

Similarly, applying the principles and methods of allocation, applicable in this case, as hereinbefore abstracted, the "Calculated Main Line Investment Applicable to Cheyenne" which "is based on the ratio of peak-day demand in Cheyenne as compared with total peak-day use of the main line," was determined, after reflecting observed depreciation (Ex. 107, 108, 109, 110, 111, Appendix), to be $665,592.

Such investment applicable to Cheyenne *before revision* is summarized as follows:

"*Plant and Investment Applicable to Cheyenne.*"

	Total	Depreciated
Main Lines	$541,655	$500,380
General Construction Expense	26,957	24,868
Compressor Stations	128,033	116,657
Measuring Stations	2,217	2,084
Telephone Lines, Office Equipment, Automobiles, Tools	5,102	3,528
Organization Expense	1,644	1,644
Working Capital	16,401	16,401
Total	$722,009	$665,592

(Ex. 118, Statement No. 2, Appendix.)

As also hereinbefore abstracted, certain identified items in the "Calculated Main Line Investment Applicable to Cheyenne" (Ex. 118) are elminated therefrom, as well as from Exhibit 111, Statements Nos. 1 and 2 (See Appendix) (Vol. 85, pp. 12,832-12,835). Such elminations are reflected in Company Exhibit 245, Statement No. 2, "Revised Statement No. 1, Exhibit No. 111"; Statement No. 3, "Revised Statement No. 2, Exhibit No. 111"; and Statement No. 7, "Calculated Main Line Investment Applicable to Cheyenne, Revised Statement No. 2, Exhibit No. 118," of said exhibit.

The results of such revisions, reflected in Exhibit 245, are summarized as follows:

"*Plant and Investment Applicable to Cheyenne.*"

	Total	Depreciated
Main Lines	$513,685	$474,530
General Construction Expense	17,221	15,897
Compressor Stations	116,534	106,706
Measuring Stations	2,217	2,084
Telephone Lines, Office Equipment, Automobiles, Tools	4,927	3,462
Organization Expense	1,655	1,655
Working Capital	16,657	16,657
Total	$672,996	$620,991

(Ex. 245, Statement No. 7, Appendix.)

The investment applicable to "Sales for Resale, Cheyenne, Wyoming," as depreciated in accordance with present per cent condition as found and determined from observation, inspection and examination (Ex. 107, 108, 109, 110, 111, Appendix), is the sum of $620,991.

The "Estimated Investment, Arapahoe to Cheyenne to Serve Cheyenne Only" (Ex. 118, Statement No. 1, Appendix), was determined in the manner testified by Mr. Hancock, as hereinbefore abstracted. "Such estimate is predicated on actual construction and capital costs as incurred by this Company in the years 1929 to 1931" (Vol. 28, p. 3891). Such total "Estimated Investment" is $904,694, and less depreciation is $833,173 (Ex. 118, Statement No. 1).

The Trial Examiner: Mr. Hancock, does the record reflect the peak day capacity of this line in 1940 and the peak day demand of the resale customers?

The Witness: The peak day demand on January 18, 1940 was 11,646,000. On that day the peak day delivery to sale for resale customers is 10,191,000. During that day for just portions of the day there were small deliveries to certain of the industrials, but not for the entire day, which accounts for a small delivery to the industrials on that day.

In November 1940 the peak day demand was 15,817,000, which so far as I know is the highest peak ever experienced and it is my information that on that day the industrials

were all off for a substantial part of the day, as stated in regard to the Cement plant, some seven to nine hours, but that being such a recent peak the data pertaining to it has not been available in all respects.

The Trial Examiner: Now, what was your peak day capacity for the year 1940, Mr. Hancock?

The Witness: Both at the time of the January 18, 1940 peak and the November 1940 peak. I would regard the system as fully loaded at both of those times.

The Trial Examiner: So that your peak day capacity on those days approximately equalled your peak day demand?

The Witness: The peak day demand represented all of the gas that the line was capable of delivering under the operating conditions at that time.

The Trial Examiner: Well, now, the construction of this Arapahoe station—

The Witness: Yes, sir.

The Trial Examiner: —that will add some peak capacity to the line, will it not?

The Witness: Yes, sir.

The Trial Examiner: At the time that it is completed.

The Witness: Yes, sir.

The Trial Examiner: When will that be completed?

The Witness: It is now practically completed.

The Trial Examiner: Do you have any information as to—

Mr. McCreery: That is the first unit, is it not?

The Witness: The first unit is practically complete.

The Trial Examiner: What do you contemplate there? How many units?

The Witness: There is now one 600-horsepower unit and it is contemplated that in 1941 another 600-horsepower unit will be added.

The Trial Examiner: Well, have you made any calculation as to what your peak day capacity might be subsequent to the installation of those two units in the Arapahoe station?

The Witness: Yes, sir. After the second 600-horsepower unit is installed, making a total of twelve hundred horsepower installed, and based on 50-pound intake pressure which is the minimum pressure specified in the purchase contract, and with 175 pounds discharge from that station, the station will have a capacity of 15,100,000.

The Trial Examiner: Well, now, let's see. Where is the location of that station?

The Witness: That is practically at the beginning of the Colorado-Wyoming Gas Company line south of Denver.

(Vol. 28, pp. 3857-3859.)

* * * * *

IV. Commission Allocation of Cost of Service

(Commission Ex. 227.)

William H. Lyon, a witness on behalf of the Commission, testified on the subject of "Allocation of Cost of Service."

The witness testified:

Q. Will you state your name, please?
A. William H. Lyon.
Q. What is your professional occupation, Mr. Lyon?
A. Senior gas Engineer in the Division of Gas Engineering of the Federal Power Commission.
Q. How long have you been so employed?
A. Since December 1938.
Q. In connection with that employment I will ask you, Mr. Lyon, whether you have previously been engaged in similar occupations?
A. I have been a gas engineer for a natural gas company.
Q. Have you prepared a statement showing your qualifications in that particular character of work?
A. I have.
Q. Will you proceed to read that, please?
A. Formal Education: Completed grade and high

schools in Mississippi. Attended the Mississippi State College in the School of Engineering and graduated in 1929 with the degree of Bachelor of Science with Honors in Mechanical Engineering. Graduate of the LaSalle Extension University correspondence course in Higher Accountancy in 1931. Also completed a special post graduate coaching course in Public Utility Accounting Problems offered by correspondence by the LaSalle Extension University.

Experience in Natural Gas Industry: Immediately upon graduating from college in 1929, I entered the employ of the Arkansas Natural Gas Corporation as Cadet or Junior Engineer, at Shreveport, Louisiana, taking the Cadet Engineering Training Course offered by that Company. During the training period I was assigned to the operating departments of various subsidiary companies of that Company, and was engaged in an intensive training course involving all of the branches of business conducted by the group of companies.

The principal business of those companies has been the production, transportation and distribution of natural gas, and the production, transportation, refining and marketing of petroleum and its products in the States of Arkansas, Louisiana and Texas. The group of companies owned oil and gas producing properties, oil pipe line systems, gas pipe lines, oil refineries, gasoline extraction plants, natural gas distribution systems and marketing of gasoline and other petroleum products. This training course covered the major portion of these properties either directly or through association with others.

Upon leaving this training course I was assigned to the general offices of the company in Shreveport, Louisiana, as an engineering assistant to one of the executive officers of the corporation. Subsequent to this, the company placed me in the general office Rate and Valuation Department as Valuation and Rate Engineer for the group of companies. The number of employees under my supervision in the office varied with the amount of work in progress, but in latter years generally ranged from 10 to 15 persons. During my employment in this capacity it was a part of my duties to prepare numerous engineering studies and reports covering the operations and property of the following companies:

Arkansas Natural Gas Corporation
Arkansas Louisiana Gas Company
Arkansas Fuel Company
Arkansas Pipeline Corporation
Arkansas Louisiana Pipeline Company
Reserve Natural Gas Company of Louisiana
Southern Cities Distributing Company
Public Utilities Corporation of Arkansas
Little Rock Gas & Fuel Company
Bethany Oil & Gas Company
Natural Gas & Fuel Corporation
Louisiana Oil Corporation
Louisiana Oil Refining Corporation.

These duties also included the preparation of inventories and appraisals of oil and gas producing properties, oil pipe-line systems, gas pipe-line systems, oil refineries, natural gasoline extraction plants, propane and butane extraction plants, wholesale and retail gasoline and petroleum marketing facilities, gasoline filling stations, bulk stations, natural gas distributing systems, and similar properties.

During this time I also prepared estimates of the cost of construction of natural gas property and upon completion of the construction made comparisons of the estimates with the actual expenditures. I have prepared detail analyses of costs of construction of some fifteen hundred miles of natural gas and oil pipelines of diameters from 2" to 20" and a number of oil pipe-line pump stations and natural gas compressing stations.

During the period of my employment by the Arkansas Natural Gas Corporation or subsidiary companies, the group of companies expended upwards of forty million dollars for construction purposes, all of which I was in some respect concerned with, for the work previously mentioned was related to the operations of all of the companies. During the construction of the Stuttgart Arkansas gas distribu-

tion plant in 1929, I acted as an assistant to the superintendent of construction and was in direct and active charge of the material records, time-keeping, and payrolls for the construction crew of approximately 150 men. I assisted in the field work in connection with a survey of a natural gas distribution plant for the purpose of determining the amount of leakage and unaccounted for gas and prepared reports indicating the cost of reducing leakage and determined the savings resulting therefrom. While in the Rate and Valuation Department of the companies, my duties also included the preparation of depletion, *drpreciation* and amortization studies of natural gas production, transmission and distribution property. I also prepared engineering studies relative to the service life of natural gas property, the causes of removal of natural gas property from service and compiled data relative to the rates of replacement of natural gas pipe lines due to physical deterioration and other causes. During 1936 and 1937 I initiated and directed the preparation of engineering studies for the purpose of determining the necessary annual accruals for depletion, depreciation and amortization of the property of the group of companies previously mentioned and, together with independent engineers retained by the company, made recommendations to the management thereupon. The property involved in this study was in excess of 100 million dollars. During 1935 I was responsible for the compilation of engineering reports submitted by an oil pipe-line subsidiary, for filing with the Interstate Commerce Commission under that Commission's Depreciation Order.

As rate engineer for the Arkansas Natural Gas Corporation and its subsidiary companies, it was my responsibility to prepare engineering reports in connection with the formulation of natural gas rates and rate structures of the group of companies. For this purpose, I prepared statistical analyses of the frequency and distribution of various sizes of gas bills and of the annual and monthly gas consumption per customer for various classes of customers in a number of gas plants. I prepared reports of the characteristics of various types of gas loads involving study of the relation of temperature or degree day deficiency to space heating loads, made analyses of coincidental demands on gas pipeline systems, studies of diversity factors and

load factors both on pipe-line systems and distribution plants.

I have prepared complete studies of the cost of rendering gas service including allocation studies necessary in determining the cost of service to individual customers. Such studies involved determination and detailing of incremental costs, determination of average system costs, limits of common cost zones, the study of the causes and source of the costs and bases for allocating the costs to various classes and kinds of gas service. One of these studies was presented in the Federal District Court for the Western District of Arkansas on behalf of the Arkansas Louisiana Gas Company in a natural gas rate litigation involving the City of Texarkana, Arkansas. The method of allocation presented was used by the special master hearing the case, was followed by the Judge in the Federal District Court, and was upheld in the Court of Appeals and in the United States Supreme Court.

Recent rate changes involving the installation of promotional type gas rates in some 18 cities and communities in the State of Arkansas, including the Cities of Little Rock and Pine Bluff, Arkansas, were the result of studies made by me in cooperation with the Department of Public Utilities for the State of Arkansas.

It has been a part of my duties to appear before regulatory bodies in connection with investigations being made into the operations of the companies with which I was connected, and attend hearings and present engineering evidence for the purpose of establishing natural gas rates. I have also appeared before representatives of the Bureau of Valuation of the Interstate Commerce Commission in connection with the determination by that Commission of the valuation of an oil pipe-line system of one of the companies.

I have also appeared in the Federal Court of the Western District of Louisiana in a case involving the determination of the fair value of industrial property.

During the course of my employment with this group of companies, there was initiated under my direction a sys-

tem of continuous engineering property records for the natural gas property of the companies, the total property for which the records were established being approximately 50 million dollars.

In 1935-1936 I prepared special engineering reports for the use of the management in connection with the reorganization of the Louisiana Oil Refining Company under Section 77-B of the Bankruptcy Act.

I entered the employ of the Federal Power Commission in 1938 as Senior Gas Engineer soon after the passing of the Natural Gas Act and have been continuously thus employed since that time. A part of my duties consist of engineering studies and investigations of the operations of a number of natural gas companies. Reference to the Dockets which have been set by the Commission indicates the scope of this work since that time.

As Senior Engineer in the Washington office of the Commission, it has been my additional responsibility to act in the place of the Chief of the Division of Gas Engineering of the Commission, who directs the work of all of the gas engineers in the employ of the Commission, during his absence. These general responsibilities have widened the field of my duties, necessitating some measure of familiarity with the operations of practically every interstate natural gas pipeline company under the jurisdiction of the Commission."

Q. Have you completed the reading of your written statement of qualifications, Mr. Lyon?

A. I have.

Q. You stated that you are presently employed by the Federal Power Commission as a gas engineer?

A. That is correct.

Q. In connection with that employment, have you had occasion to prepare and did you prepare any study or exhibits on the subject of cost of service in connection with this present proceeding?

A. Yes, I have.

Q. I will ask you whether this is the exhibit that you prepared?

A. That is correct.

Mr. Lange: Mr. Examiner, this exhibit has an appendix. I think it might be practical to, in the same fashion that this appendix be an "A" number of the exhibit.

The Trial Examiner: Very well, Mr. Lange. Did you state the title of the document?

Mr. Lange: "Allocation of cost of Service for the Year 1939, Canadian River Gas Company and Colorado Interstate Gas Company."

Will the reporter please mark the exhibit for identification?

The Trial Examiner: It will be marked for indentification as Exhibit 226.

(Exhibit 226, Witness Lyon, marked for indentification.)

The Trial Examiner: And the appendage thereto?

Mr. Lange: The index will be 226-A, the appendage.

The Trial Examiner: Is that an index or is it an appendix?

Mr. Lange: It is an appendix.

The Trial Examiner: It will be marked for indentification as Exhibit 226-A.

(Exhibit 226-A, Witness Lyon, marked for indentification.)

By Mr. Lange:

Q. Mr. Lyon, did you in connection with the preparation of that exhibit also prepare a written statement describing the nature and contents of the exhibit?

A. I have.

Q. Will you please read that written statement into the record?

(Vol. 74, pp. 10930-10940.)

* * * * *

The Witness: "This exhibit entitled "Canadian River Gas Cmpany and Colorado Interstate Gas Company, Allocation of Cost of Service, Year 1939" has been compiled and is presented to show the cost to the Canadian River

Gas Company and Colorado Interstate Gas Company, combined, of supplying natural gas to its customers, and to determine by allocation and apportionment the amount of the total aggregate costs experienced by these two companies during the year 1939, attributable to the gas service rendered to each of the groups served from these same facilities. The necessity for an exhibit such as this arises by reason of the fact that the several customers of these companies jointly use the same gas plant and depend for gas service upon the same pipeline facilities and gas supply.

Table 1, entitled "Summary of Cost of Service and Comparison with Revenues," reflects in columns 3 to 10, inclusive, the total cost of service ($3,406,857.99) as summarized in Table 4 as to the customer or groups of customers designated (column 1), at the several delivery points (column 2), and shows in column 11 the adjusted operating revenues (total $6,036,276.35) received, as to each customer, and credits for gas utilized in operations, on deliveries of gas during the year 1939.

Amounts in column 3 represent the allocation of cost for all gas produced at well heads, the description of the total cost ($1,051,721.34) being shown in Table 5. In this latter table is developed the unit cost per mcf of $0.02196 (actually $0.021956777) on 47,899,622 mcf of gas produced and made available for sale during 1939. The amounts in Table 1, column 3, relating to the respective customers or groups of customers are derived by multiplying the deliveries in mcf as shown in Table 2, column 6, by the unit cost ($0.021956777) per mcf developed in Table 5.

Amounts in Table 1, column 4, represent the cost of production system gathering of gas, the description of the cost ($170,628.03) being shown in Table 6. In this latter table is developed the unit cost per mcf of $.00396 (actually $.003959818) on 43,089,864 mcf of gas gathered, which excludes 4,809,758 mcf of gas of the total gas produced, covering direct well head deliveries to Amarillo Oil Company. The amounts in Table 1, column 4, relating to the respective customers or groups of customers are derived by multiplying the deliveries in mcf as shown in Table 2, column 6,

excluding deliveries to Amarillo Oil Company, by the unit cost ($.003959818) per mcf developed in Table 6.

Amounts in Table 1, column 5, represent the results from production system residuals refining (gasoline extraction) operations, effecting a credit of $169,144.37 to cost of service, as detailed in Table 7, $118,508.69 and $15,056.24 of the total credit amount shown in Table 1, column 6, are direct allocations to Natural Gas Pipeline Company of America (line 53) and Amarillo Oil Company (line 55) respectively; these amounts relate exclusively to these customers. The remainder of the total credit amount ($35,579.44) is allocated in Table 1, column 5, solely to customers on the Denver Line, lines 1 to 50 inclusive, by multiplying the deliveries in mcf as shown in Table 2, column 6, lines 1 to 51 inclusive, by the unit cost, $.00163 (actually $.0016299207) per mcf developed in Table 7, line 23.

Amounts in Table 1, columns 6, 7 and 8, constitute the cost of gas transmission totaling $2,265,650.63, the details of which are contained in Table 8. The amounts in Table 8 are further separated to show those costs allocable on the basis of: (1) mcf sales deliveries shown in column 4, "Volumetric Costs," (2) maximum daily deliveries shown in column 5, and (3) rental of leased facilities shown in column 6.

Amounts in Table 1, column 6, totaling $673,427.50, related to the respective customers, are derived by multiplying the sales deliveries in mcf as shown in Table 2, column 6, by the unit cost, $.030850 (actually $.03085021676) per mcf, developed in Table 8.

Amounts in Table 1, column 7, totaling $611,641.80, related to the respective customers, are derived first by application of the percent (44.917%) developed in Table 2, column 7, line 51, to the total ($1,361,715.60) shown in Table 8, column 5, line 30, the product being $611,641.80, the transmission cost of service allocable to customers on the basis of system maximum day deliveries. Secondly, the unit cost per mcf involved in this allocation amounts to $14.33423482, obtained upon division of the total cost of service, $611,641.80, by the total, 42,670 mcf, shown in Table 2, column 7,

line 51. The unit cost thus developed was applied to the mcf system maximum daily delivery shown for each of the customers in Table 2, column 7, lines 11 to 45 inclusive, to obtain the amounts shown in Table 1, column 7, lines 10 to 44 inclusive.

Amounts in Table 1, column 8, totaling $750,073.80, related to the respective customers, are derived first by application of the percent (55.083%) developed in Table 2, column 8, line 51, to the total ($1,361,715.60) shown in Table 8, column 5, line 30, the product being $750,073.80, the transmission cost of service allocable to industrial customers on the basis of individual maximum day deliveries. Secondly the unit cost per mcf involved in this allocation amounts to $10.62171715, obtained by division of the total cost of service, $750,073.80, by the total 70,617 mcf, shown in Table 2, column 10, line 51. The unit cost thus developed was applied to the mcf individual *maxumum* daily delivery shown for each of the customers in Table 2, column 10, lines 9 to 45 inclusive, to obtain the amounts shown in Table 1, column 8, lines 1 to 44 inclusive.

In Table 1, line 53, between columns 7 and 8, is shown the amount of $230,507.53, described in Table 8, column 6, line 7, as the joint expenses rental of leased facilities. This entire amount is applicable to deliveries to Natural Gas Pipeline Company of America.

Amounts in Table 1, column 9, represent the cost of distribution, totaling $88,002.36, the details of which are contained in Table 9. The amounts in Table 9 are further separated to show first those costs allocable equally per customer in column 4, and secondly those costs allocable upon the ratio of adjusted book cost of plant at December 31, 1939, in column 5; while the second page of Table 9 shows the proportionate allocations in columns 4 and 5 to the respective locations of service and reflected accordingly in Table 1, column 9.

Amounts in Table 1, column 10, are the totals of respective amounts in columns 3 to 9 inclusive, the sources of which have been explained in the preceding paragraphs."

By Mr. Lange:

Q. Mr. Lyon, have you completed the reading of your written statement in connection with that exhibit?

A. I have.

Q. Mr. Lyon, did you in connection with your assignment in this particular proceeding prepare another exhibit on allocation of cost of service in connection with the Colorado-Wyoming Gas Company?

A. I have.

Q. Is this the exhibit I now show you?

A. That is correct.

Mr. Lange: Will the reporter please mark that for identification?

The Trial Examiner: It will be marked for indentification as Exhibit 227.

(Exhibit 227, Witness Lyon, marked for identification.)

Mr. Spencer: There is no appendix to this one?

Mr. Lange: No appendix to this one, Mr Spencer.

Q. Mr. Lyon, in connection with this particular exhibit, did you also prepare a written statement explaining its contents?

A. I did.

Q. Will you please read that statement into the record?

A. "This exhibit entitled "Colorado-Wyoming Gas Company, Allocation of Cost of Service, Year 1939" has been compiled and is presented to show the cost to the Colorado-Wyoming Gas Company of supplying natural gas to its customers, after adjusting the cost of gas purchased from the Colorado Interstate Gas Company to that determined in the previous exhibit No. 226, entitled "Canadian River Gas Company and Colorado Interstate Gas Company, Allocation of Cost of Service, Year 1939." This exhibit also determines by allocation and apportionment the amount of such total costs during the year 1939 attributable to the gas service rendered to each of the groups that were served from its facilities. The necessity for an exhibit such as this arises by reason of the fact that the several customers of this company jointly use the same gas plant and depend

for gas service upon the same pipeline facilities and gas supply.

Table 1, entitled "Summary of Cost of Service and Comparison with Revenues," reflects in columns 3 to 10 inclusive, the total cost of service ($599,153.84) summarized in Table 4, as to the customer or groups of customers designated (column 1), at the several delivery points (column 2), and shows in column 11 the adjusted operating revenues (total $828,941.30) received, as to each customer, on deliveries of gas during the year 1939.

Amounts in Table 1, columns 3 to 5 inclusive, represent the allocation of the cost for all gas purchased for resale, a total amount of $358,385.63, as detailed in Table 5. In Table 1, the total of column 3 is $158,847.03, as shown in the "Recapitulation of Cost," in Table 5; and this amount has been allocated to customers and groups of customers by application of the unit cost per mcf $158,847.03 ÷ 2,839,717 = $.0559376268) to the respective mcf sales deliveries of gas shown in Table 2, column 6.

In Table 1, the total of column 4, $107,540.98, is *detained* in Table 5, as $106,532.03 on line 5, plus 53.89% of $1,872.24 on line 8 ($1,008.95). The sum thereof has been allocated to customers and groups of customers by application of the unit cost per mcf ($107,540.98 ÷ 7014 = 15.3323324) to the respective mcf maximum day deliveries of gas shown in Table 2, column 7.

In Table 1 the total of column 5 is $91,997.62, as detailed in Table 5, $91,134.33 on line 6 plus 46.11% of $1,872.24 on line 8 ($863.29); which sum has been allocated to customers or groups of customers by application of the unit cost per mcf ($91,997.62 ÷ 10,512 = $8.75167179) to the respective mcf individual maximum day deliveries shown in Table 2, column 11.

In Table 1 the total of column 6, $70,599.44, volumetric transmission cost of service, as detailed in Table 6, column 4, has been allocated to customers and groups of customers by application of the unit cost per mcf shown in the latter table, $.024861 (actually $.02386143513) to the respective mcf sales deliveries of gas shown in Table 2, column 6.

In Table 1 the total of columns 7 and 8 is $149,920.91, being the capacity transmission cost of service, as detailed in Table 6, column 5. The total of column 7 in Table 1, $75,201.83, represents 50.161% of $149,920.91, using the ratio shown at the bottom of column 7 in Table 2, and was allocated to customers and groups of customers by application of the unit cost per mcf (75,201.83 ÷ 7,014 = $10.72167522) to the maximum day deliveries shown in Table 2, column 7. The total of column 8 in Table 1, $74,719.08, represents 49.839% of $149,920.91, using the ratio shown at the bottom of column 10 in Table 2, and was allocated to customers and groups of customers by application of the unit cost per mcf ($74,719.08 ÷ 10,512 = $7.107979452) to the respective individual maximum day deliveries shown in Table 2, column 11.

In Table 1 the total of column 9, $20,247.86, is the distribution cost of service as detailed in Table 7, first page; whereas the second page of this statement shows the allocation to customers.

The amounts shown in Table 1, column 10, are totals of the respective amounts in columns 3 to 9 inclusive, the total of which is $599,153.84, the aggregate cost of service, set forth in Table 4."

Q. Have you completed the reading of your written statement in connection with this exhibit, Mr. Lyon?

A. I have.

Q. Now, Mr. Lyon, in connection with your cost of service study that you have prepared and particularly with reference to the previously named and numbered exhibits, 226 and 227, I will ask you whether you have prepared a summary of such cost of service for the years 1937, 1938 and 1939 as applying to Canadian River Gas Company, Colorado Interstate Gas Company, as well as Colorado-Wyoming Gas Company?

A. Yes, I have.

Q. As I understand it, this summary that you have so prepared is not an essential part nor is it necessary to the consideration of the aforementioned two exhibits, 226 and 227?

A. That is correct, it is not essential?

Q. And it was prepared by you primarily for the purpose of giving a spread over the three years named?

A. That is correct.

Q. And will you indicate briefly what your purpose was in preparing such summary?

A. There is included in this exhibit two parts. The first part applies to the combined Canadian River Gas Company and Colorado Interstate Gas Company. The second part applies to the Colorado-Wyoming Gas Company. The two parts are wholly separate.

Q. And included in the instrument purely for mechanical purposes for brevity, but they do not necessarily appear in a combined instrument?

A. That is correct.

Q. Now, is there any other statement you wish to make with reference to that?

A. The first page in this exhibit is entitled "Written Statement."

Q. Will you please read that into the record?

A. "This exhibit has been compiled and is represented to show for the consolidated Canadian River Gas Company and Colorado Interstate Gas Company System and for the Colorado-Wyoming Gas Company System the total cost of service of each functional division determined in the same manner as was done in other exhibits for the single year 1939."

Q. Now, the two exhibits you are referring to are Exhibits 226 and 227?

A. That is correct.

Mr. Lange: I have overlooked. I want this instrument identified by the reporter.

The Trial Examiner: It will be marked for indentification as Exhibit 228.

(Exhibit 228, Witness Lyon, marked for identification.)

By Mr. Lange:

Q. This is the summary exhibit that I am now showing you that has just been identified by the stenographer as Exhibit 228?

A. That is correct.

Q. Now, if you will complete the reading of that written statement appearing on the title page, Mr. Lyon.

A. "This exhibit is presented for the purpose of showing the fact that the unit costs, resulting from the operations of these companies for the year 1939, also approximate the average for the three years 1937, 1938, and 1939. The following tabulation shows in summary form a comparison of costs determined from the operations of these companies for the year 1939, as compared with similar costs for the three-year period:

"Canadian River Gas Company and Colorado Interstate Gas Company

	Average for Years 1937, 1938, 1939	Year 1939
Cost of Gas at the Wellhead	.02124	$ .02196
Cost of Production System Gathering	.00396	.00396
Cost of Residuals Refining (Amarillo Oil Co.)	(.0632)	(.0031)
Cost of Residuals Refining (Denver Line)	(.0015)	(.0016)
Cost of Residuals Refining (Chicago Line)	(.0054)	(.0057)
Cost of Transmission—Volumetric Costs	.031522	.03085
Cost of Transmission—Capacity Costs	1,313,903.39	1,361,715.60
Rental of Leased Facilities—Cost	220,337.34	230,507.53
Cost of Distribution	85,608.05	88,002.36

"Colorado-Wyoming Gas Company

	Average for Years 1937, 1938, 1939	Year 1939
Cost of Transmission— Volumetric costs	.026553	$ .024861
Cost of Transmission— Capacity Costs	154,249.97	149,920.91
Cost of Distribution	18,157.87	20,247.86

"All statements made in connection with the preceding exhibits, relating to the year 1939 as to methods of compilation, sources of information, and allocations, apply with equal force to the tables in this exhibit."

Q. That completes the written statement on the title page of the exhibit, Mr. Lyon?

A. That is correct.

Q. I have one question to ask you with reference to Exhibit 227. Turn to Exhibit 227, Table 5, Mr. Lyon, the page entitled "Colorado-Wyoming Gas Company, Summary of Cost of Gas Purchased for Resale, for the year 1939." In what sense do you use the word "resale" on that table, as well as anywhere else in the exhibit?

A. The use of the words "gas purchased for resale" means all of the gas purchased by this company for resale, regardless of whether it is direct to customers or to distribution plants for redistribution and resale.

Q. Now, are there any other explanations that you have to make in connection with any one of these exhibits, Mr. Lyon, at this time?

Mr. Spencer: I would prefer, if agreeable to Mr. Lyon, to let him check up and see if he has any further explanations and then make them in advance of our cross examination.

Mr. Lange: Very well, that will be agreeable.

Mr. Spencer: I will probably not handle the—

Mr. Lange: That will be all for the present, Mr. Examiner, of this witness.

Mr. Spencer: Mr. Lyon, may I ask you this: My question is about to show my ignorance.

In connection with Exhibit 225 and Exhibit 225-A, are they complete in themselves?

The Trial Examiner: 226, I believe.

Mr. Spencer: 225 and 225-A.

The Trial Examiner: Those are Mr. Knapp's exhibit.

Mr. Spencer: I beg your pardon—226 and 226-A. Are they complete in themselves, or do you have working papers in connection with them?

The Witness: There are working papers in connection with Exhibit 226 and 226-A. The source of the figures in Exhibit 226-A are in the same working papers.

Mr. Spencer: And you have those available?

The Witness: They are, yes, sir.

Mr. Lange: They will be made available to you, Mr. Spencer, at any time that you advise us.

Mr. Spencer: Now, the same question with respect to Exhibit No. 227.

The Witness: Yes, there are working papers supporting that exhibit.

Mr. Spencer: And I will ask the same question with respect to Exhibit 228. I guess perhaps there aren't, or do you have working papers in connection with Exhibit 228?

The Witness: There are working papers and they are in the same file as the working papers for the two previous exhibits.

(Vol. 74, pp. 10941-10955.)

Commission Exhibit 226 (Appendix this Record).

Commission Exhibit 227 (Appendix this Record).

Commission Exhibit 228 (Appendix this Record).

On cross-examination the witness testified:

The amounts shown in Exhibit 227 for operating expenses, depreciation, depletion, taxes, non-recurring expenses, exploration and development costs and working capital, were all secured from exhibits introduced in this case by the Commission. Such exhibits were identified as Exhibit 199, "Plant Account" by Vaught; Exhibit 200, "Composite Service Lives" by Copp; Exhibit 201, "Annual and Accrued Depreciation" by Smith; Exhibit 202, "Income Accounts" by Smith; and Exhibit 203, "Working Capital" by Smith. (Vol. 81, pp. 12,049, 12,050.)

In addition to the adjusted expenses determined by the examiners of the Commission, Exhibit 227 includes, as an element of cost service, an amount calculated at 6% on the average net adjusted book cost of these plants in service during the year 1939, and on the working capital. (Vol. 81, p. 12,051.)

With respect to peak-day demands the witness was forced to admit:

"Q. • • • I asked you if you knew of the various peak day demands upon the Colorado-Wyoming Gas Company's system during the last three years by days. All that is reflected in Exhibit No. 227 is a peak delivery as I understand it of Colorado Interstate Gas Company out of its system. It doesn't have anything to do with the peak day demand upon the Colorado-Wyoming Gas Company's system.

"Q. I think I have all of the demand figures to which you refer.

• • • • • •

"Q. What was the peak day demand on the system's delivery by Colorado-Wyoming Gas Company on December 26, 1938?

"A. I will answer that subject to the fact that these are working papers and I must state that these deliveries were not used in this exhibit and I have not had occasion to convert these deliveries to the uniform pressure base of measurement followed by the exhibit, but the volumes are on a contract pressure base.

"Q. They didn't enter into your study in any degree as reflected in Exhibit No. 227?

"A. In so far as the determination of the coincidental demands, no.

"Q. Did they otherwise enter into your consideration?

"A. They may have with respect to the individual industries.

"Q. Did they or did they not?

"A. I will have to check and see."

(Vol. 81, pp. 12,053-12,055.)

"*Mr. McCreery:* • • • I asked you if these peak day deliveries beginning with the peak day delivery of 12-26-38 as a peak day delivery entered into your study or into your exhibit.

• • • • •

"*The Witness:* May I ask for an explanation of whether you meant the peak day in the total or in detail?

"Q. I said the peak day in total as such.

"A. I am sorry, but I misunderstood you. The peak day in total does not:

"Q. What was that peak day delivery from the Colorado-Wyoming's system?

"A. Subject to the same statement I made that this volume is not accurate by reason of not having been translated to a uniform pressure base, the amount is 15244.

• • • • •

"A. Yes, and that is on December 26, 1938.

"Q. What was the delivery by that company on February 9, 1939?

"A. Upon the same basis as the previous figure, the volume is 12,672 Mcf.

"Q. Now, on January 18, 1940—

"A. I am sorry, I don't have that figure.

"Q. Do you have any figure in 1940?

"A. Not as a part of this exhibit, no.

"Q. Do you have them? I don't care whether they are part of the exhibit or not.

"A. I have requested that, an engineer to do that, but at this time of the hearing I don't have them.

"Q. So the peak delivery of December 26, 1938 was

substantially larger than the delivery on February 9, 1939?

"A. I don't say substantially larger, it was larger.

"Q. It is the difference between 12,672 and 15,244 Mcf?"

(Vol. 81, pp. 12,057, 12,058.)

"Q. Mr. Lyon, the difference between the deliveries by the Colorado-Wyoming Gas Company system on December 26, 1938 which was according to your figures, 15,244 Mcf, and the deliveries on February 9, 1939, which again according to your figures were 12,672, computed, amounted to a little over 20 per cent difference, does it not?

* * * * *

"A. Approximately, I believe it would be."

(Vol. 81, p. 12,070.)

In Exhibit 227 the witness used the "Maximum day deliveries on Colorado Interstate Gas Co. Peak Day—Thurs. Feb. 9, 1939" (Exhibit 227, Table 2). The same day, he declared, was used for Colorado-Wyoming Company, and Colorado Interstate Company, for the reason that the witness believed it represented the maximum domestic and commercial demand of both systems as a whole (Vol. 81, p. 12,106). He also testified:

"If the peak of the domestic and commercial load occurred other than as I have used it, I think that that coincidental commercial and domestic peak would be a reasonable base to use, but that peak must be recurring, * * *"

(Vol. 81, p. 12,101.)

"Q. Now, Mr. Lyon, do you know whether or not all of the industrial contracts entered into by Colorado-Wyoming Gas Company carry a shut-off provision so that if sufficient gas is not available to supply the demand made upon the company the industrial contracts are shut off in whole or in part so as to afford a supply to those having prior rights, the domestic consumers?

"A. I believe that clause as you state it is substantially in all of the contracts. I have not examined the contracts for the sale or distribution—

"Q. Do you know whether or not a similar provision is contained in the franchises under which gas sold by Colorado-Wyoming Gas Company is served various communities by Public Service Company of Colorado? Do you know that?

"A. I haven't examined the franchises.

"Q. So you do not know that?

"A. No.

• • • • •

"*The Witness:* As I understood the question, I will ask you this: Do you mean that the rights for gas service for the Colorado-Wyoming Gas Company on the facilities of the Colorado Interstate Gas Company are subordinate to the rights of the city of Denver?

"*Mr. McCreery:* Yes.

• • • • •

"A. I know that the subordination of one contract or class of service is related to another and that the Colorado-Wyoming Gas Company's contract has some peculiarities, but I am not able to recall right now exactly the wording of that.

"Q. Do you understand or know whether or not the supply of gas to Colorado-Wyoming Gas Company is also subordinate to the supply of gas for the city of Pueblo?

"A. I believe I recall that provision, yes.

"Q. Did the fact this shut-off provision was in all of the industrial contracts, in the terms of these franchises, if any of the franchises have terms, and of these various contracts enter into your study or Exhibit No. 227?

"A. No, except in the statement that I made with reference to the shut-off clause.

"Q. There is no effect given to them in the determination of this exhibit?

"A. No.

"Q. Nor in any of the elements in your exhibit, is that true? It doesn't enter into your exhibit at all?

"A. The determinations in that exhibit, that is correct."

(Vol. 81, pp. 12,058-12,061.)

As to deliveries on February 9, 1939, witness stated he

did not know whether for a portion of that day deliveries of gas were limited strictly to domestic customers, although he did know that service was restricted to the industrial customers. (Vol. 81, pp. 12,068-12,069.)

"Cost" as used by the witness in Exhibit 227 is as determined and set out in Commission's Exhibits 199, 200, 201, 202 and 203, and includes cost of purchased gas, operating expenses, maintenance, depreciation, taxes and an "amount of return determined at 6 per cent." (Vol. 81, pp. 12,071, 12,072.)

The cross-examination was continued as follows:

"Q. And in cost you include these items that we have discussed. Now, I observe, referring to Exhibit 227, that the difference between $828,941.30 in Column 11 and the item of $599,153.84 in Column 10 of Table 1 is the sum of $139,717.41 which appears to be the amount that you feel we are paying in excess of what we should pay for gas and the sum of $90,070.05 which is the amount of supposed excess earnings which Mr. Smith in his Exhibit 202 sets up, being in excess of the 6 per cent return, is that true?

"A. No.

"Q. That is just a coincidence, is it?

"A. No. I have not determined what you should pay for gas at the Arapahoe station. I have determined what it is costing the Colorado Interstate Gas Company to deliver that gas including as an element of cost 6 per cent of the net adjusted book cost of the plant, and I have not—

"Q. We won't argue about it. Now, that is the cost—that is what our cost really should be, is it?

"A. No, I don't say what it should be. I say that is what the cost is.

"Q. That is what the cost is; so that the cost of our gas is $139,717.41 less than we are paying for it, is that it?

"A. The cost including a return of 6 per cent.

"Q. Yes, that's right. It is that amount less. Now, that particular figure happens to be found in the Colorado Interstate exhibits, does it not, offered by the Commission?

"A. The $358,385.63.

"Q. No. The apportionment down to $139,717.41. I will refer you to Table 4 of Exhibit 227. At the bottom of the page where you show the purchase price actually paid for the gas at $498,103.04, and you have adjusted the price we should pay down to $358,385.63, and the difference is $139,717.41. Now, is that the amount that we have been paying in excess of what the gas cost us under your definition of cost?

"A. Yes.

"Q. All right. Now, then, after you have substracted from the $828,941.30 the sum of $139,717.41, you have left 689,223.89, have you not?

"A. I don't follow those figures.

"Q. You have followed as far as $139,717.41, didn't you?

"A. No, sir. That is the difference between the cost—yes.

"Q. Now, applying that figure by subtraction from the total in Line 40, Column 11, Table No. 1 of Exhibit 226, what do you get?

"A. I believe my figures are correct—$689,223.89.

"Q. Now, your figure in Line 40, Column 10, Table 1, Exhibit 226, is what?

"A. $599,153.84.

"Q. That represents, under your definition, the cost of gas to us including a return, does it not?

"A. It represents your cost of service.

"Q. Including a return.

"A. That is right.

"Q. On plant.

"A. On the net adjusted book cost.

"Q. Will you get the difference between the figure $689,223.89 and your $599,153.84?

"A. $90,070.05.

"Q. Now, is that not the figure that comes from Page 10 of Exhibit No. 202 of Mr. Smith after you have subtracted from his figure a 6 per cent return on the investment he sets up on that page?

"A. I will have to check those references.

"Q. Or substantially that figure.

"A. I would have to make that calculation. The basis

which I have for determining the return is the same as the—no.

"Q. Well, you make the calculation for the year 1939.

"A. That is substantially correct. The figure which Mr. Smith sets up on Line 8 is $167,902.75, and 6 per cent on the total average investment, Line 7, in the same Column, is $77,626.54. The difference between those figures is $90,276.21 which is approximately the same as the amount of $90,070.05.

"Q. Now, isn't that difference completely reconciled in the way in which you compute your return on Table 4?

"A. The difference is due entirely to the fact that in determining the average balance in contributions in aid of construction, I have used a 3-year average whereas Mr. Smith uses the single year.

"Q. So that makes its entire identity with that change?

"A. That's right.

"Q. So as a matter of fact, Mr. Lyon, you had your answer before you started this exhibit, didn't you?

"A. You mean mathematical relationship between these two figures?

"Q. You had your cost figure before you started to make this exhibit or before you started to make this study.

"A. The total cost of service was taken from the accountants' exhibit with the exception of return.

"Q. There is no determination of cost in this exhibit whatever, is there? This is simply a readjustment of figures in the way in which you happen to have made them, is it not?

"A. I have taken the accountant's figures as representing cost. I have no redetermined costs.

"Q. Did you not start with $599,153.84 at the beginning of your study in this exhibit?

"A. That is correct.

"Q. And then you worked backwards from that figure to whatever else is in this exhibit.

"A. I allocated—that is correct.

"Q. Well, now, how many times did you work out formulas before you got to a formula that would fit that cost?

"A. That is not a formula. That is very simple.

"Q. Well, I could agree with you but I would define it differently than you do.

"A. It is a summation of the total costs as reflected in accounting Examiner's exhibits brought forward into this exhibit and an added amount for return incorporated and the resulting total cost is reflected in this exhibit."

(Vol. 81, pp. 12,079-12,083.)

It was stated by the witness on cross-examination that in Exhibit 226, Table 2, Columns 7, 8 and 9, under heading "Coincident System Maximum Day Delivery, Thursday, Feb. 9, 1939" of Colorado Interstate Company, the apportionment of capacity in percentages was "Domestic, Commercial, Lost Gas" 44.917% and "Industrial" 55.083%—and that had the same formula been used in Exhibit 227 with respect to Colorado-Wyoming Company, the apportionment of capacity would have been "Domestic, Commercial and Lost Gas" 65.3% and "Industrial" 34.7% (Ex. 227, Table 2, Columns 7, 8 and 9, Vol. 81, p. 12,086) instead of "Domestic, Commercial and Lost Gas" 50.161% and "Industrial" 49.839% actually used by him in Exhibit 227, Table 2. (Vol. 81, pp. 12,083-12,087.)

The formula used in Exhibit 226 is the per cent ratios of "Domestic, Commercial and Lost Gas" and "Industrial" to the total "Coincident System (Colorado Interstate Company) Maximum Day Delivery, Thursday, Feb. 9, 1939" (Ex. 226, Table 2, Columns 7, 8, 9).

The witness testified that, the figures under the heading "Coincidental System Maximum Day Delivery, February 9, 1939," in Exhibit 226, Table 2, Columns 7 and 8 for the most part, and, therefore, also in Column 9, are averages and estimates, not actual or maximum (Vol. 81, pp. 12,020-12,025). Similarly, the figures under the heading "Individual Maximum Day Delivery to Industrial Customers" in Exhibit 226, Table 2, Column 10, is an average, not a maximum (Vol. 81, pp. 12,025-12,026).

The formula used in Exhibit 227, as to Colorado-Wyoming Company, on the other hand, was the per cent which "Domestic, Commercial and Lost Gas" deliveries (as averaged and estimated, but not computed by the witness, Vol. 81, pp. 12,099, 12,100, 12,102, 12,104, 12,105, 12,107) on "Max-

imum Day Deliveries on Colorado Interstate Gas Company (Note: not Colorado-Wyoming Gas Company) Peak Day—Feb. 9, 1939," bear to "Coincident System Maximum Delivery to Industrial Customers" (estimated and averaged, not maximum and not computed, Vol. 81, pp. 12,090-12,093, 12,097, 12,098, 12,099, 12,112, 12,113). This he fixed in January, 1939 (Vol. 81, pp. 12,090, 12,091, 12,097, 12,098) (Ex. 227, Table 2, Volumes 7 and 10),

The witness stated "I think the demand on February 9, 1939, of the domestic customers was very close to the peak demand" although he admitted that he did not consider the demand on any other day of those domestic customers (Vol. 81, p. 12,088), and if there were a day or two in excess of that day "that would not be of any consequence." (Vol. 81, p. 12,105.)

The witness testified: "The month of January was the month in which the maximum industrial deliveries occurred.

"Q. What year?

"A. Of the period July, 1938 to June 30, 1939, inclusive.

"Q. That was the highest month in that particular year?

"A. That 12-month period, yes.

"Q. Your figures are not figures for any single day?

"A. That is correct. They are based on the average for the month.

"Q. They are the average figures, I see.

"A. If you would like to have a complete explanation of that I can give you the details of how it worked out.

"Q. All right, let's have it?

"A. The month in which the maximum demand for this class of service has been determined from a study of the aggregate monthly deliveries in the different months. The determination was then made of the maximum daily requirements for this class of service in the particular month indicating the maximum average daily delivery and the determination of the amounts for each customer.

"Q. Average and not peak?

"A. The demands of small industrial customers served, directly, from the pipe line have been estimated

at approximately the average daily demand computed from the number of calendar days in the monthly period for which readings were secured. For the industries served in the lines of the distribution plants, industrial demands have been determined at an amount approximating the average demand using the number of working days in the month."

(Vol. 81, pp. 12,090-12,092.)

For example, the witness testified that the maximum delivery to Colorado Portland Cement Company at Laporte in January, 1939, (as of which month Column 10, Table 2, Exhibit 227, is tabulated) was 108,641 M. c. f., which, divided by the number of days in the billing period, produces 3,504 M. c. f., the figure used as a maximum by him in that exhibit. (Vol. 81, p. 12,092.) He admitted, however, that the result was not a peak day, but stated that in his belief "the average day would approximate the peak day", because "generally speaking cement plants run under a steady load." He did not have the figures to show or know how many days that plant operated in January, 1939. (Vol. 81, pp. 12,097-12,099.)

As to the Great Western Sugar Company he gave 1,087 M. c. f. for January, 1939, in Column 10 under his heading, "Maximum Delivery," which was arrived at by dividing the total monthly deliveries by 31, although he did not know whether deliveries were made during all those 31 days or not. (Vol. 81, pp. 12,098, 12,099.)

Similarly all the figures used in Column 10, Table 2, Exhibit 227, entitled "Coincident System Maximum Delivery to Industrial Customers" with respect to sales to all other industrial customers "are all estimates based upon the deliveries during the month of January 1939." No examination was made as to actual duration and conditions of use in Fort Collins, figures for which were given by the witness as 550 M. c. f. in Column 10. "That is an estimate based on the number of working days in the month," and assumes that every domestic and industrial customer was using gas in equal amounts every working day of the month. (Vol. 81, pp. 12,099-12,101; 12,111-12,113.)

Witness stated: He used Denver temperature curve in making his estimates. He did not consider Cheyenne temperature nor the difference in average wind velocities in Denver and Cheyenne (Vol. 81, pp. 12,093, 12,094); that domestic and commercial gas sales "increase with the reduction in the weather" and the use of "the day of lowest temperature" is a reliable guide for determining maximum sales and peaks of such classes of customers. The weather does not have an important effect on industrial consumption. (Vol. 81, pp. 12,102, 12,105.) The seasonal factor in the industrial load of Colorado-Wyoming Company, he stated, is of a minor nature. (Vol. 81, p. 12,102.) In 1939 the temperature was "about normal or maybe a little subnormal. There was no peak." "The peak for the heating season, 1938-1939" the witness stated, "occurred in February," which was colder. (Vol. 81, p. 12,095.) Did not recall whether he had complete Cheyenne weather statistics—did not have a temperature curve. (Vol. 81, pp. 12,093-12,094.)

The time of "Coincident System Maximum Delivery to Industrial Customers," fixed by him as January, 1939, relates not to the year 1939, as stated in Exhibit 227 and as previously testified by the witness, but to "the period July, 1938, to June 30, 1939, inclusive." (Vol. 81, p. 12,091.) The witness would not say that February 9, 1939, was actually the peak-day delivery of Colorado Interstate Company to Colorado-Wyoming Company for domestic and commercial customers, during the period stated, but qualified his answer by adding "with reasonable accuracy that is correct." (Vol. 81, p. 12,107.)

The December 26, 1938 system peak of Colorado-Wyoming Company of 15,244 M. c. f. was called to his attention, and when asked why that peak was not used in Exhibit 277, he replied "I used class peak as distinguished from system peak. System peak is not a matter of determination." Yet he used system peak in the case of Colorado Interstate Company, because he said "it was the same as the class peak." (Vol. 81, pp. 12,103, 12,104, 12,109.) Witness did not know the breakdown between industrial and other consumers. (Vol. 81, pp. 12,108-12,109.)

Witness has no information with respect to peaks and

peak-day deliveries in 1940, although Exhibit 227 was prepared in January, 1941. (Vol. 81, p. 12,088.)

The attention of the witness was called to Exhibit 226, Table 2, Column 10, Line 28, where the "Individual Maximum Day Delivery to Industrial Customers" to Colorado-Wyoming Company by Colorado Interstate Company is shown as 8,580 M. c. f., and to Exhibit 227, Table 2, Column 11, Line 40, where the total of "Individual Maximum Day Delivery to Industrial Customers" is shown as 10,512 M. c. f. His explanation of the difference was: "Out of the 10,512 M. c. f., 8,579 M. c. f. are daily, actual readings, the balance being estimates based upon available information." The estimated figure 8,579 M. c. f. he thought was the total for the month (December 1938) divided by the number of days in the month,—an estimate averaged and not an actual or a maximum at all. (Vol. 81, pp. 12,109-12,112.) The total of Column 10, Table 2, Exhibit 227 "Coincident System Maximum Delivery to Industrial Customers," by Colorado-Wyoming Company, and every figure in the column which produces the total of 6,969 M. c. f., is an estimate, the witness stated. (Vol. 81, pp. 12,112, 12,113.)

The witness testified (Vol. 81, pp. 12,083-12,085, 12,101) that had the same formula of apportionment of capacity costs between "Domestic, Commercial and Lost Gas" and the "Industrials" been used in Exhibit 227, in relation to Colorado-Wyoming Company, as was actually used in Exhibit 226 in the same apportionment with respect to Colorado Interstate Company, "the answer would be incorrect"; yet later (Vol. 81, p. 12,103) when asked the "certain differences" which he had stated justified the use of a different formula in each case, he replied, "I maintain the formulas are identical as applied to the Colorado Interstate and Colorado-Wyoming."

Further on cross-examination the witness testified: "Load factor is the ratio of the peak demand to the average demand and this determination gives effect to the capacity requirements." Both time and volume must be known in order to fix the load factor. He "allocated capacity to the domestic, commercial and lost gas based on their demands, maximum daily." The time element comes into the compu-

tation because the demands are "daily maximum demands" and had weekly or monthly demands been used, the answer might have been different. The time element enters into it because the day was used. "For the purpose of allocating costs," this satisfies the problem of load factor. The witness added: "I have determined that the allocation of capacity on the basis of the peak requirements for the class of service on the maximum day gives effect to the time element of demand." (Vol. 81, pp. 12,114, 12,115.)

"Q. All right, now, where did you apply the load factor?

"A. This exhibit does not apply load factor. It applies the loads themselves.

"Q. You say it in effect applies it?

"A. It gives effect to load factor.

"Q. Just as though you had given a load factor proper consideration?

"A. It does consider the load factor.

* * * * *

"Q. * * * Well, now, in your column 10, Table 2, have you considered the load factor involved in connection with each of those customers mentioned there, or did you treat them all alike?

"A. When I allocate the capacity costs in proportion to the maximum demand of each of the customers, I gave consideration to the load factor.

* * * * *

"Q. Where did you bring that result into this exhibit of yours?

"A. It is not necessary for me to calculate load factors because I allocated the capacity cost in accordance with the capacity requirements and that gives effect to the load factor.

"Q. But you don't take peak demands on this company system as your starting point. Now, how can you get any basis of load factor when you don't take the capacity of the system which you do not take?

"A. I do not use the capacity of the system.

"Q. No, nor the maximum delivery of the system, either one.

"A. That is correct.

"Q. And yet you have given full consideration to load factor?

"A. Yes, load factors of the individual customers.

• • • • •

"A. As to size of customers. I was thinking of two identical customers with the same peak requirement. The customer with a low load factor would have a low amount of volume.

"Q. On the total identical use or on the same peak demands?

"A. On the same peak demands.

"Q. That's right, but you don't find customers like that much, do you?

"A. When you are determining load factor it is necessary to consider both the volume and the demand.

• • • • •

"Q. Does it make any difference to you what is the date of demand?

"A. Yes.

"Q. Whether it is summer or winter?

"A. Yes.

"Q. Did you give that consideration?

"A. Yes, I have, because I have allocated the domestic and commercial customers as a group the proportion of the capacity costs which they demand of the facilities.

"Q. As a matter of fact, do you know—whether or not it is true that on repeated occasions the biggest customers that this company has have been shut off in whole or in part to satisfy the demands of the domestic customers?

"A. I recited the full data we had received from the company with respect to the shut-offs.

"Q. Which you said you didn't use in this exhibit?

"A. That is correct.

"Q. Yet you are charging this particular customer on your setup here with capacity costs, are you not?

"A. Yes. All of the industrials have been charged with capacity costs except the Valmont plant of the Public Service Company.

"Q. And under the operation of this system the Colo-

rado-Portland Cement Company is subject to shut-off and is shut off every year at various times and yet you are charging capacity—you are charging him a demand for capacity that he isn't entitled to. How do you justify that?

"A. After allocating the capacity to the industrial customers as a group I had—I have distributed them to the individual industrial customers in accordance with their individual maximum use.

"Q. All right.

"A. Now, if an industry is shut off, then peak does not occur. Now, to the extent—

"Q. But does occur in your table because you take them during the summertime so that you have given him a peak and charged him capacity on that peak demand and even though at a later time he doesn't get any.

"A. I will complete my other answer first.

"Q. All right.

"A. To the extent that reductions are made, it would be appropriate to reduce the allocated capacity and the individual industry affected.

"Q. Did you do it in this exhibit?

"A. I think I have in the case of the Valmont plant.

"Q. All right, have you in the case of the Colorado Portland Cement Company?

"A. No, because on the day of the coincident system maximum delivered to industrial customers the Colorado Portland Cement Company took 3,504 Mcf.

"Q. Because on that day they got that much gas and on many other days couldn't get any gas, you nevertheless charge plant capacity to them, nevertheless just because on that day they did get that amount of gas?

"A. That is correct.

"Now, if you would refer to the years 1937 and 1938—

"Q. I am referring to this exhibit. Now, you didn't charge any capacity against the Valmont plant because you called that a strictly emergency service?

"A. That is correct.

"Q. So that isn't comparable to either the Great Western Sugar Company or the Colorado Portland Cement Company, is that right?

"A. They aren't directly—they aren't closely comparable.

"Q. Now, you have stated it would be appropriate but you haven't done it, have you? You have still charged plant capacity against both of the two big industrial users which have been repeatedly shut off to satisfy domestic requirements?

"A. As I say, to the extent that the shut-off is carried out.

"Q. You have got plenty of evidence of shut-off in this case and in this record today.

"A. It may have been shut off on the day of the system peak but it was not shut off on the day of the industrial peak.

"Q. What does that prove?

"A. That is a fact.

"Q. Well, what does it prove?

"A. Well, in accordance with the method that I followed here, it is a part of the 6,969 Mcf.

"Q. I appreciate that, but what does it prove? It simply proves that you have taken some arbitrary figures, doesn't it?

"A. No.

"Q. You have recognized the principle in your written statement. You haven't applied it here as I understand, because on this particular day they weren't shut off.

"A. I thought I had made the point clear.

"Q. No, you haven't to me yet.

"A. That industrial coincidental demand was 6,969 Mcf. which occurred in January of the year 1939 and on that day the Colorado Portland Cement plant took approximately—as closely as we can determine—3,504 Mcf, and in accordance with the responsibility for that class of service, the gas was delivered.

"Q. On that day?

"A. On that day.

"Q. But there were a good many other days that they had to be closed down because the demand of domestic customers made it necessary, that doesn't enter into your calculation, does it?

* * * * *

"Q. Now you have charged, as I understand, capacity to a customer who can have gas except when somebody else wants it, or needs it. This somebody else being the domestic.

"A. Well, that is a conclusion.

• • • • • •

"Q. Well, you did not select for your consideration a day of which there are many upon which the domestic requirements crowded the Colorado Portland Cement Company entirely out of the line, do you?

"A. No, sir, I do not select the day here. The class peak demand determines the day."

(Vol. 81, pp. 12,115-12,127.)

---

1. Volumetric costs are costs incurred predominately in proportion to the volume of gas handled, irrespective of the rate of delivery.

2. Capacity costs are costs of a consistently recurring nature which vary with the rate of gas delivery and are independent of the operating load factor. The customer costs are costs incurred to render special service to known customers, attributable only to the service rendered to such customers. Such costs are further of a nature that there is little or no relationship or mutual benefit with other customers connected to the same pipe line facilities.

(Vol. 81, pp. 12,004-12,005.)

• • • • • •

Q. Referring, Mr. Lyon, to Exhibit No. 227, upon what other exhibit does that exhibit have its foundation?

A. The amounts shown in this exhibit for operating expenses, depreciation, depletion, taxes, nonrecurring expenses, exploration and development costs, and working capital, have all been secured from exhibits heretofore introduced in these proceedings by accounting Examiners of the Federal Power Commission.

The amounts thus—

Q. Just a minute there. Will you give the numbers of those exhibits at that point?

A. The amounts for the plant investment and expenses of the Colorado-Wyoming Gas Company are taken from Exhibits 199, 203—

Q. What about Exhibit 202?

A. And 202.

Q. What about Exhibit 200?

Mr. Lange: Exhibit No. 200 is the service life estimate.

Mr. McCreery: I understand that. I asked if that was part of the foundation for this exhibit.

Mr. Lange: I don't know whether he recalled Exhibit No. 202 by title—I mean 200—

The Witness: I am not familiar with the title.

By Mr. McCreery:

Q. That is the study designated as "Study on Composite Service Life," isn't it?

A. No.

Q. You didn't use that?

A. No.

Q. Now we can go on with your typewritten statement.

A. The amount shown for gas purchased for Colorado Interstate Gas Company reflected the adjustment of the cost of that gas to equal the cost of service determined for such gas in the exhibit entitled "Canadian River Gas Company and Colorado Interstate Gas Company allocation of cost of service, year 1939," Exhibit No. 226. Any change in the cost—

Q. And in addition, the exhibits of the Commission with respect to Colorado Interstate Gas Company and Canadian River Gas Company upon which that Exhibit No. 226 in turn is vested?

A. That is correct. Any change in the cost of service determined in that exhibit for gas purchased by the respondent company necessitates a related change in this exhibit.

Q. You have already made that change, apparently? You have reflected changes in Exhibit No. 227 which you have already undertaken to make in Exhibit 226, is that true?

A. I haven't changed Exhibit No. 226.

Q. You made changes in Exhibit No. 226—

A. Exhibit 226 is carried forward into Exhibit No. 227.

Q. That is right. Now, did you prepare the exhibit—

A. Pardon me, I haven't completed my answer.

In addition to the adjusted expenses determined by the

Examiners of the Commission, this exhibit includes as an element of the cost of service, an amount calculated at 6 per cent per annum on the average net adjusted book cost of gas plant in service during the year 1939, as return on property in service; and an additional amount calculated at 6 per cent per annum on the amount of working capital, determined in the exhibits submitted by Examiners of the Commission.

These amounts for return are likewise included without prejudice as to the proper amounts which may be allowed, and have been adopted in this exhibit for the purpose of presenting a complete statement of the cost of service.

(Vol. 81, pp. 12,049-12,051.)

* * * * *

Q. Now with respect to the date February 9, 1939, did you say whether you had knowledge there were curtailments on that date and deliveries by Colorado-Wyoming Gas Company? And did you state the same concerning the following day, February 10, 1939?

A. This table I have here does not—from the table I have here of the Colorado-Wyoming Gas Company it does not show a curtailment on February 9, 1939. The Colorado Interstate Gas Company indicates in its report it had curtailed service to Colorado-Wyoming Gas Company on that day but Colorado-Wyoming Gas Company's statement, as I have it here, does not appear to reflect that.

Q. Do you know whether or not on February 9, 1939, at which time you reported a demand and service of 12,672 Mcf., that that service was rendered entirely to the resale domestic customers?

A. No, it was not. Of the 12,672 Mcf., the Great Western Sugar Company took 1,254 Mcf., the United States War Department took 25 Mcf., and the Denver Board of Water Commissioners took 63 Mcf., the Adolph Coors Brewery took 74 Mcf., the Golden Fire Brick Company took 258 Mcf., the Kuner-Empson Company took 81 Mcf., Denver Pressed Brick Company took 200 Mcf., and the United States War Department of Fort Warren, Wyoming, took 61 Mcf.

Q. After the shutdown on that day, did they take that?

A. I don't know.

Q. As a matter of fact, do your records show whether

or not Great Western Sugar Company went off at 9:30 a. m. and stayed off until 11:30; was on for a small load until 2:30, and then went off at midnight? You don't know about that?

A. I don't know if they were the exact figures as you quote them. I don't know whether they were correct. I know service was curtailed to the industrials but they did take the volumes that were reflected.

Q. There was no curtailment there on that day?

A. As I stated, the letter from the Colorado-Wyoming Gas Company did not show the curtailments.

Q. But you understood from other sources there was curtailment that day?

A. Yes, I understood from the Colorado Interstate Gas Company.

Q. And these customers you referred to, were they on that day curtailed?

A. I couldn't state that exactly.

Q. You don't know in answer to my question as to whether or not after curtailment on that day there only remained domestic customers? You are not in a position to answer, is that true?

A. Referring to your statement that they made partial deliveries on that day, I accept that as being correct.

Q. I mean partial deliveries during part of the day.

A. That is correct.

Q. So you don't know whether or not before the day was over the load was limited strictly to the domestic customers?

A. I don't know about that.

Q. Your records show, however, the shut-off of the Great Western Sugar Company, do they not?

A. No, they do not show that.

Q. The small industrials that you referred to, those amounts are estimates, are they not?

A. Yes, for those customers where the meters are positive meters and these meters which I have read, beginning with the United States War Department with displacement meters, the daily volumes are of necessity estimates.

Q. So that the estimate made is actually an average for the week, is it not?

A. It is very close to the average unless there was some special service.

Q. So it would be an average and not a peak day delivery for the week because your peak day delivery and your average are not the same, are they?

A. There would be reasonable grounds for difference between the two, yes.

Mr. McCreery: Do you desire to recess now?

(Vol. 81, pp. 12,067-12,070.)

• • • • •

Q. Now, referring to Exhibit 226, Table 2, Columns 7, 8 and 9, what is the purpose and the effect of your apportionment into percentages of Columns 7, and 8, out of the total of Column 9?

A. Would you read that back, please?

(The question referred to was read by the reporter as set forth above.)

By Mr. McCreery:

Q. Referring to Line 51 of those three columns.

A. The percentages 44.917 and 55.083 were determined for the purpose of allocating the transmission capacity costs of the combined Canadian River Gas Company and Colorado Interstate Gas Company to the two classes of service set forth in Columns 7 and 8.

Q. Well, then, why did you arrive at that formula? Why was it thought that that was the formula to use there?

A. "Capacity costs of the transmission system have been first allocated to the major classes of service upon the basis of the class peak demand placed on the facilities by each class as a group. Such costs, after being allocated to each class of service, have been apportioned to individual customers or groups of customers in the proportion that the demand of each bears to the total of its class group."

Q. That is not responsive to my question. Perhaps you misunderstood my question. I asked you why you used that formula in arriving at these total apportionments here.

A. That is the correct formula to use.

Q. In any case of a transmission system where you are trying to apportion the domestic commercial and gas lost on the one hand the industrial on the other out of the total, that is the formula to use, is that right?

A. That is the determination to apply to that company at that time. I might explain that it happened in the period involved in this exhibit that the month of the industrial peak occurred *contemperaneously* with that of the domestic commercial and lost gas and the industrial demand coincident with the maximum domestic demand has been used for that reason.

Had the peak coincident demand of the industrial customers occurred at another time during the year, that would have been used as was used in the Colorado-Wyoming exhibit when—where the p k did so occur.

Q. All right, now, of course the difference in the practical operation of it is that the application of this same formula in the Colorado-Wyoming case would have given a very much higher proportion to the domestic, would it not?

A. It would, but the answer would be incorrect.

Q. Just a moment. Answer my question. We'll find out whether it is incorrect or not in a moment. I asked you whether it would not have been given a very substantially greater percentage to domestic.

A. You have not followed the testimony that I have just given.

Q. I am not concerned with your testimony. I said the application of this formula in the case of the Colorado-Wyoming would have produced, instead of the 49 per cent attributed by you in the same columns to domestic, it would have produced in excess of 65 per cent to the domestic users, would it not.

A. It would be an incorrect application.

Q. It would have produced that result, would it not?

A. You stated the application of this formula and that would be an incorrect application.

Q. I don't care whether it would or not. What would its application have done? Give me the computation and we'll decide that later, and how would it have been apportioned in applying this formula in the case of Colorado-Wyoming.

A. I repeat again that that is a misapplication of the formula.

Q. I heard you the first time. My question is for a computation.

A. It would be the ratio of 7014 to 10786.

Q. Well, what is that?

A. For the domestic commercial and lost gas—you want me to make the calculation?

Q. Yes, sir, I do.

A. All right. Subject to the correctness of my calculations I think it would be 65.3 per cent for domestic, commercial and lost gas, and the remainder 34.7 per cent for industrial.

Q. Now, you said the reason you did that was because the peak demand for the industrials came in a different month than the month of February, isn't that true?

A. Yes.

Q. All right, now, why is it wrong, just because it is different?

A. On Thursday, January 7, 1937, the application in this method would have resulted in 38.53 per cent—

Q. Wait a minute. The application of which method?

A. The method I am following here.

Q. Your method?

A. Correct. I will read the complete figures here. At least the figures I will read correspond to the figures in Columns 7, 8, 9 and 10 of Table 2, Exhibit 227, covering other periods of operation. The figure for Column 7 on Thursday, January 7, 1937, was 6,406—

Q. Wait a minute. Under what theory?

A. The same method, the determination of the peak day demand.

Q. You have 7,014 here.

A. That is correct. That is the figure for Thursday, February 9, 1939.

Q. Now you are going to what date?

A. Thursday, January 7, 1937.

As I understood your question, you asked me why I did it in this manner—

Q. Just to show you get a different result, doesn't convince me that is the—

A. I intend to show this is a recurring characteristic first. These figures—

Q. Before you give those figures, let me suggest this to you, also; that February 9, 1939 wasn't the peak demand of the domestic any more than it was of the industrial.

A. That is your statement. I think that the demand on

February 9, 1939 of the domestic customers was very close to the peak demand.

Q. You think it is the peak demand. All right, we will stop right there. Did you consider the demand on any other day of these domestic customers?

A. In the preparation of this exhibit?

Q. Yes.

A. No.

Q. So you don't know whether it was the peak demand or not?

A. My working papers show that it was the peak demand.

Q. Bring out your working papers. I understand your working papers show nothing in 1940, is that right?

A. That is correct.

Q. So you haven't anything in the year 1940, although this exhibit was made up in January 1941, am I right?

A. The most recent available complete information, both demands and accounting data, was the year 1939—

Q. Wait a minute. This information, and you know it, has been available at any time since it was compiled from the records of that company. Don't tell me that—

A. The statement still stands that the complete information showing the costs—identical demand figures; I could have secured for the year 1940.

Q. What are the demands for the domestic customers in 1940?

A. I don't have them here.

Q. You don't have them at all. I see. So the only figure you have is February 9, 1939?

A. The working papers reflect the coincidental delivery from the system for the maximum day of each month. To illustrate, at Fort Collins the maximum delivery during the month of January 1939 occurred on January 16, and it was 1,707. The delivery to the same customer on the date of the maximum in February, being February 9, was 2,351, indicating that the deliveries to Fort Collins on the peak day in February 1939 were considerably in excess of what they were in January 1939.

Referring further to the other month that has been mentioned, to December, the deliveries on the maximum day,

December 26, 1938, were 2,087 which is lower than the deliveries on February 9, 1939.

Q. That is from Fort Collins?

A. That is correct. I have similar figures for all points of delivery.

Q. Have you figures for January 18, 1940; January 19, 1940; December 13, 1940; December 14, 1940?

A. No.

Q. You have none of those? What day is represented in Column 10 of Table 2, Exhibit 227? What day was that?

A. That occurred during January.

Q. What day in January?

A. The same method of compilation of that data—

Q. What is the date?

A. I will explain it in a minute.

Q. Just give me the date and then we can talk about it.

A. I don't use the date. The maximum is made from the monthly figure.

Q. It is an average, isn't it?

A. I am trying to explain how it was determined.

Q. Give me the date. I want the date to start with.

A. The date isn't of consequence.

Q. I want the date whether it is of consequence or not.

A. Shall I select a date in January for you because the calculation is made from the monthly volumes?

Q. If it isn't any day in January; I want to know that.

A. I do not have the day. The month of January was the month in which the maximum industrial deliveries occurred.

Q. What year?

A. Of the period July 1938 to June 30, 1939, inclusive.

Q. That was the highest month in that particular year?

A. That 12-month period, yes.

Q. Your figures are not figures for any single day?

A. That is correct. They are based on the average for the month.

Q. They are average figures, I see.

A. If you would like to have a complete explanation of that, I can give you the details of how it is worked out.

Q. All right, let's have it.

A. The month in which the maximum demand for this

class of service occurred has been determined from a study of the aggregate monthly deliveries in the different months. The determination was then made of the maximum daily requirements for this class of service in the particular month indicating the maximum average daily delivery and the *determinaion* of the amounts for each customer.

Q. Average, and not peak?

A. The demands of small indsutrial customers served directly from the pipe line have been estimated at approximately the average daily demand computed from the number of calendar days in the monthly period for which readings were secured. For the industries served in the lines of distribution plants, the industrial demands have been determined at an amount approximating the average demand using the number of working days in the month.

Q. Well, now, let's get down to particulars. Have you finished that?

A. Yes.

Q. Now, for instance, we will take the Colorado Portland Cement Company. You have a figure of 3,504 Mcf. How did you arrive at that?

A. It is based on a determination for the deliveries during the month of January. Due to the fact that I do not have the exact billing data in the working papers, I do not have the exact diversity, but it would be 108,641 mcf divided by the number of days in that particular billing period.

Q. 108,641 what?

A. The deliveries to the Colorado Portland Cement Company recorded for January 1939.

Q. I was asking for February but I will take January. Let's take January. What were the deliveries in January?

A. The figures I just read.

Q. 106,634 Mcf.?

A. 108,634 Mcf.

Q. And how many days was the service rendered that month?

A. I didn't bring the billing data with me but it would be based upon that figure.

Q. What would be the average for the month according to your method?

A. I am assuming that customer is billed on a calendar basis.

Q. Let's assume that and if there is a correction it is satisfactory to make it.

A. It hits exactly the figure I have, 3,504 mcf.

Q. Now, did you look into the temperature conditions at that time and find January 1939 was an extremely mild month?

A. Yes.

Q. You did?

A. I don't know that it was an extremely mild month but I have the temperature curves.

Q. All right, let's see those.

A. I have a curve plotted for the city of Denver, Colorado, the data for which was taken from the United States Weather Bureau station in Denver showing the mean daily temperature.

Q. Have you a curve plotted for Cheyenne, Wyoming?

A. No, I do not.

Q. Cheyenne would be the demand that would affect the flow of gas to the Colorado Portland Cement Company, would it not? This company doesn't supply Denver.

A. I am afraid you have too many points in your question. I think that the temperature in Denver is within a range of the temperature in Cheyenne.

Q. How about wind conditions in Cheyenne?

A. It is quite true Cheyenne would be colder, being in a more northerly latitude, but the difference would not be appreciable or to an extent that it would distort or destroy the difference—

Q. What about the average wind velocity in Cheyenne and Denver?

A. They can be secured. I don't have them here.

Q. You don't have them here and you didn't use them?

A. For the purpose of demand of the Colorado Portland Cement Company—

Q. For any part. You don't have it at Cheyenne?

A. I don't recall whether we had complete weather statistics for Cheyenne or not. I do have the annual degree day deficiency.

Q. All right, let's come to this—

A. —which shows for the period—

Q. I don't want the annual. I am talking about January.

A. You asked me—

Q. I asked for January, stating that it was a milder month than February. That was my question. You admitted it was mild and you didn't know how much milder.

A. I said that I couldn't state it was milder, but I have the exact figures for Denver and that graph plotted would indicate whether or not the weather in the month of January 1939 was above or below normal.

Q. Above or below normal? Does it show how much above or below normal?

A. The graph is self-explanatory. It includes both the normal temperature and the daily mean temperature actual for the month of January.

Q. So you compare it with February?

A. That is correct.

Q. February 1939?

A. That is correct. Apparently, as I inspect the curve for the month of January 1939, the temperature is probably about normal or maybe a little sub-normal. There was no peak. The peak for the heating season 1938-1939 occurred in February.

Q. So that meant a lower temperature?

A. That is correct. The severity reached its peak in February.

Q. So February was colder than January?

A. That is correct.

Q. So at the time of this maximum day delivery of Colorado Interstate Gas Company on February 9, 1939, we were dealing, so far as the territory of the Colorado-Wyoming Gas Company was concerned, with a milder month than—no, with a colder month, and the Cement plant was off in February, wasn't it?

A. I don't get the relationship between the two.

Q. Was it off in February? Was the Cement plant operating in February?

A. Pardon me, but you have two statements there.

Q. I will withdraw them and ask you this: Was the Cement plant operating in February 1939?

A. No.

Q. All right. So there was a higher demand for domes-

tic gas in February 1939, was there not, than in January 1939?

A. I would expect so, and that was the reason, as I have stated—

Q. Did you examine to see?

A. Let me finish. That was the reason I believed that February would be the maximum necessary—

Q. Did you make a comparison on the domestics?

A. I recited the experience at Fort Collins, which I thought was illustrative.

Q. Did you make a study of everything, Cheyenne and all?

A. I can state that I did.

Q. You think so. Now, you have 3504 mcf in January from the Cement plant which was their average over the month?

A. That is correct.

Q. You do not have a peak day?

A. I believe the average day would approximate the peak day.

Q. Do you know it would?

A. No, but generally speaking Cement plants run under a steady load.

Q. Of course you don't know how many days it was on in January, do you?

A. I don't have the figures here, no.

Q. What about the Great Western Sugar Company plant?

A. The deliveries to the Great Western Sugar Company in February were 34,847 Mcf.; in January, 33,693 Mcf.

Q. So you took the February date for the Great Western Sugar Company, did you?

A. The dates, what?

Q. The month of February for this Column 10. What month did you take? January for the Great Western Sugar Company?

A. Column 10 is secured wholly from the month of January.

Q. How many days did the Great Western Sugar Company run that month?

A. I do not have that figure.

Q. You don't know?

A. No, I do not know, but I know on January 16, the day that the system—the day of that month that the system delivered a maximum amount of gas to the Great Western Sugar Company. What it delivered each of the days of the month, I do not know.

Q. You are talking about what—January 16, 1939?

A. That is correct.

Q. What do you say about January 16, that was the maximum of what?

A. That is the day during the month of January when the system delivered the maximum amount of gas.

Q. That was the peak day in January?

A. For the system, that is correct.

Q. What was that peak?

A. It was 12,070 Mcf.

Q. What?

A. 12,070 Mcf. These volumes are on a pressure base of 14.65 pounds absolute.

Q. Now, how did you get the figure of 1,087 Mcf. on Great Western Sugar Company?

A. That is the result of dividing the monthly deliveries by 31, the number of days covered in the period.

Q. You don't know whether the deliveries were made during all those 31 days or not, do you?

A. I do not know.

Q. The same thing is true with respect to the Cement plant, you divided by 31, but you don't know whether there was delivery all the way through the month, do you?

A. That is correct. The effect of those determinations is to produce, if anything, a lower coincidental industrial demand than would be determined—

Q. I am not concerned with what that figure is. I am concerned with the method and the accuracy of the plan followed to arrive at these results.

Now, all of the figures with respect to sale—beginning with sale to the United States War Department, to non-associated gas utilities and associated gas utilities, all of those are estimates, are they not?

A. In Column 10?

Q. Yes.

A. Yes, I believe they are estimated in the same fashion—in a similar fashion to the figures I have just given.

Q. As a matter of fact, you did make some readings

on the days, didn't you, with respect to Golden, Boulder, and Fort Collins? They have daily readings there, don't they?

A. In Column 10—you are still speaking of that column?

Q. They related to those various towns stated. Now, I say, referring to Fort Collins, the bottom town on Line 37, you have there 550 Mcf. They have daily reading there. What day did you read that, or is that an estimate, too?

A. Wait a minute and I will check it. That is an estimate based upon the number of working days in the month.

Q. That assumes that every domestic and industrial user was using every working day?

A. Yes.

Q. And that you don't know. Did you make these estimates, or did somebody else make them?

A. I issued instructions by which they were made.

Q. Somebody else made the estimates and you got them here as estimates. All right.

A. I repeat that the instructions were specific. I indicated exactly how they were to be made. There was no latitude. I stated that the monthly demand was to be divided by the averages—

Q. Without any examination as to the actual conditions of the users during the month, you just simply took the monthly demand and divided it and got an average?

A. That is correct.

Q. That doesn't represent a peak at all, does it?

A. It does if the industrial customers—

Q. Mr. Lyon, you stated that it would be wrong to use the same formula in connection with the Colorado-Wyoming Gas Company in your Table 2, Exhibit 226, for the reason that the industrial peak didn't come in the month of February.

Now, supposing the domestic peak didn't come in the month of February because the peak day here under consideration is a peak day of the Colorado Interstate Gas Company and not of the Colorado-Wyoming Gas Company.

A. It is also the coldest day in the period.

Q. That doesn't make any difference. It isn't the peak day. Supposing neither of these two classes of service had their peak day in this month that you have selected arbitrarily as against Colorado-Wyoming just because you

used it with Colorado Interstate. What would your formula be then?

A. That is a hypothetical question.

Q. I know it is. You haven't had any trouble with the hypothetical so far, so I venture that you can answer my question.

A. If the peak of the domestic and commercial load occurred other than as I have used it, I think that that coincidental commercial and domestic peak would be a reasonable base to use, but that peak must be recurring, and as I was reciting, I was showing that this was a recurring characteristic year by year.

Q. What is?

A. The domestic and commercial gas sales increase with the reduction in the weather and that the use of the day of the lowest temperature as a guide for determining the maximum domestic and commercial sales is reliable.

Q. In other words, in the colder weather it develops a domestic use?

A. That is correct.

Q. On both systems?

A. That is correct.

Q. What about your industrial?

A. The weather does not have as an important effect on the industrial consumption—in fact, the weather is of minor consequence.

Q. That is true in both systems, is it not?

A. Yes, it is. There is some seasonal factor in some of the loads—

Q. Of both companies?

A. That is correct. It is of a minor nature.

Q. What else? Is there any differentiating factors?

A. Differentiating factors—I am sorry, but I lost out.

Q. In the operation of these companies you have alleged there were certain differences that justified you from departing from the formula used by the Colorado Interstate and applying another formula to the Colorado-Wyoming which by coincident is much less favorable to Colorado-Wyoming than if you had used the other formula used in Colorado Interstate—.

A. I maintain the formulas are identical as applied to the Colorado Interstate and Colorado-Wyoming.

Q. You maintain that except you don't have Column 10, a similar Column 10, to Table 2, Exhibit 227?

A. I explained why I did not.

Q. Why is that?

A. Because it makes industrial demand incurred coincident with the system's maximum demand and it was unnecessary to add it. It would have been unnecessary repetition of the figures in Column 8.

Q. And that is true with respect to that 12-month period alone? You don't know about any other 12-month period?

A. That is correct for that period and I have the figures for the two preceding years.

Q. How about the year following?

A. 1940?

Q. Yes.

A. As I stated, I do not have the figures.

Q. You don't have them with respect to the other company?

A. That is correct.

Q. February 9, 1939 was the period of maximum day deliveries by Colorado Interstate for that year, wasn't it?

A. For the 12 months ending June 30, 1939.

Q. Now, then, you are undertaking to say that that was the maximum day delivery of domestic load for that company at any time during that year?

A. Approximately, yes.

Q. Approximately?

A. Yes.

Q. What was the highest load? What other day?

A. I don't know of any.

Q. What do you mean by approximately?

A. As I have stated, for the purpose of this exhibit—

Q. I am not concerned with the purpose of this exhibit; I am concerned with facts.

Mr. Lange: Let him finish.

The Witness: For the purpose of this exhibit we are determining a percentage of distribution of capacity of the two classes of service.

By Mr. McCreery:

Q. We haven't gotten that far.

A. And the determination of the peak, domestic and

commercial sales on the day which I have used are within sufficient accuracy for the uses of this exhibit; whether there is another day or two that might be there, that would not be of any consequence in determining this percentage.

Q. I am not concerned with your theories of accuracy or inaccuracy. I want to know if that was the system for commercial users of Colorado Interstate Gas Company.

A. As far as I have been able to determine, it was.

Q. Did you check it yourself?

A. Each day for each customer?

Q. Yes.

A. That would be a tremendous detail. I don't think it necessary.

Q. How do you determine peak of the domestic load without checking it day by day? Isn't it—isn't that the way you checked it?

A. You can check it for reasonable accuracy by inspecting the temperature conditions. For instance, you wouldn't expect the commercial and domestic to have a heavy demand in July. There will be certain periods in the year when the peaks are liable to occur and those peaks are related to the temperature, so we inspected more carefully the data during the months that the domestic and commercial load was increasing and then made a careful determination of the day that we believed as the result of these determinations the peak occurred.

Q. You don't say as a matter of actual fact that February 9 was the maximum peak day delivery of domestic gas to domestic customers during that year by Colorado Interstate Gas Company?

A. I believe as far as I have been able to say, it was.

Q. Do you say it was a fact?

A. It would depend upon what the realm of accuracy would be that you would insist upon.

Q. This particular time is not the peak day of Colorado-Wyoming Gas Company. Why didn't you use Colorado-Wyoming Gas Company's peak day in Exhibit No. 227?

A. I have used the same day for Colorado-Wyoming Gas Company because it represents the maximum domestic and commercial demand for the system as a whole.

Q. You are sure of that?

A. I am sure of that.

Q. Are you sure of it?

A. I made sufficient examination to a point where I think I am sure of it.

Q. Does it represent the maximum peak day for domestic demands?

A. That is what I said.

Q. You said both domestic and commercial. You say 7,014 mcf was the peak day delivery by Colorado Interstate Gas Company in that year?

A. For domestic and commercial use.

Q. Is that what you used?

A. With reasonable accuracy that is correct.

Q. "With reasonable accuracy that is correct," whatever that means.

Now, you have no check for the year 1940, have you?

A. I have introduced no figures in these exhibits with reference to 1940.

Q. You go back to 1938?

A. I have those figures available.

Q. But you didn't use them?

A. For the purpose of this exhibit, no. I testified that the recurrence of the demands with the temperature enabled me to know that they do run together.

Q. As a matter of fact, within your year of July 1, 1938 to June 30, 1939, you had a much greater peak the other time, did you not, than the peak on this day?

A. What peak?

Q. Colorado-Wyoming Gas Company's total peak and its domestic and commercial peak.

A. I think that the domestic and commercial peak reached its maximum on Thursday, February 9, 1939 and the industrial peak reached a maximum during January 1939.

Q. And yet you wouldn't happen to know that there was a peak on December 26, 1938 for above this of 15,244 mcf according to your own figures?

A. That is a system peak.

Q. All right, what are the elements of that system peak?

A. The domestic and commercial and industrial.

Q. What is the amount of it?

A. The two totaled together give a figure—

Q. What is that?

A. I do not have the breakdown of the demand on that day.

Q. So you don't know?

A. I can get that information for you.

Q. But you don't know and didn't use it in this exhibit?

The Trial Examiner: You mean he didn't use it or he didn't know?

Mr. McCreery: First he didn't know about it and then he didn't use it.

The Witness: I know that the demand existed.

By Mr. McCreery:

Q. But you don't know what the figures were that made up the total?

A. I know what the totals were for the system for each maximum day each month.

Q. Why didn't you use the Colorado-Wyoming maximum peak in this Exhibit 227?

A. I used class peak as distinguished from system peak. System peak is not a matter necessary for this determination.

Q. You used system peak in the other case, didn't you?

A. I explained why, because it was the same as the class peak.

Q. But you didn't use our peak day at any time?

A. The system peak day?

Q. Yes.

A. That is correct.

Q. How is that?

A. That is correct.

Q. And yet you are apportioning capacity charges as between domestic and industrial not on the basis of the operation of the Colorado-Wyoming Gas Company's system but on the basis of the operation of the Colorado Interstate Gas Company's system?

A. No.

Q. Yes, you are.

Now, in Exhibit No. 226, Column 10, Line 28, Table 2, how did you arrive at the figure of 8,580?

A. Would you give me those references, please, Mr. Reporter?

(The question referred to was read by the reporter as set forth above.)

The Witness: That is a determination based upon the volume of deliveries during the month of December 1938.

By Mr. McCreery:

Q. Well, what is that? Is that the average for the month?

A. It is an estimate.

Q. An estimate, how made?

A. You see these figures are for three years.

Q. Can you tell me generally? What is it? an average estimate figure for the month of December?

A. Being an estimate it is my belief at the present time that it is based on the determination from the month.

Q. Total for the month divided by the number of days in the month?

A. I think that is correct. I was trying to check the monthly delivery.

Q. So if that is true, it isn't a maximum day, it is an average day. It is the average for the month, daily.

A. Yes.

Q. All right. Now, will you tell me, referring to Exhibit 227, Column 11, Line 40, Table 2, how is the figure 10,512 Mcf. arrived at?

A. Those are individual determinations for each of the customers; those customers whose volumes are read—

Q. How are those estimated?

A. Pardon me. That last sentence that I stated should have been those volumes are partly estimated and partly actual.

Q. Partly estimated on the average basis?

A. I can answer that specifically rather than generally.

Q. All right, let's have it.

A. The first figure of 62 Mcf. is an estimate based on the volume of sales for the week ending December 25, 1938. The basis for the determining of the next figure, 58 Mcf., are the deliveries of the week ending December 25, 1938. The next figure, the volume for the Colorado Portland Cement Company is an actual figure for the day of May 21, 1939. The next figure of 28 Mcf. is an estimate based on the volume for the week ending February 24, 1939. The

next figure of 226 mcf is an estimate based on the volume for the week ending October 14, 1938. The next figure is an actual figure on April 11, 1939.

Mr. Lange: Which one is that?

Mr. McCreery: Great Western Sugar.

Mr. Lange: 1609 mcf?

The Witness: 1609. The next figure, 258 mcf, is September 24, 1938. The next figure of 216 mcf is an estimate based on the—

By Mr. McCreery:

Q. 258 mcf was an estimate?

A. I am not quite sure of that. Having the day here I believe that is a daily actual figure.

Q. It is a weekly reading, as a matter of fact.

A. Is it? Then it must be an estimate. The next volume of 216 mcf is an estimate based on the week ending August 5, 1938.

The next figure of 22 mcf is an estimate based upon the month of February 1939. The next figure of 51 mcf is an estimate based on the month of February 1939 as well as 99 mcf, the next figure; as well as 297 mcf, the next figure; and 621, the next figure; and the next figure is 271 mcf, based on an estimate for the month of January 1939.

The next two figures, 72 mcf and 10 mcf, are estimates based on the month of February 1939. The next figure of 6 mcf and the figure after that of 41 mcf, and the figure after that of 595 mcf, is based on an estimate for the month of February 1939.

Out of the 10,512 Mcf., 7579 Mcf. are daily, actual readings, the balance being estimates based upon available information.

Q. Now, in Column 10 it shows a figure of 6969 mcf. How did you arrive at that?

A. Those figures are all estimates based upon the deliveries during the month of January 1939.

Q. Every figure there is an estimate?

A. That is correct.

Q. All right. Now, did you consider load factor con-

ditions on the lines of the Colorado-Wyoming Gas Company in your study?

A. Yes.

Q. Did you give them any effect?

A. The division of this capacity cost and the transmission system gives the effect to the load factor.

Q. Where do you give effect to the load factor? Show me.

A. The load factor is the ratio of the peak demand to the average demand and this determination gives effect to the capacity requirements.

Q. Well, isn't the load factor an individual thing to the customer and so far as the system is concerned it relates to the actual utilization in time and in percentage compared with the total capacity, does it not?

A. I am sorry, I lost out.

Q. Well, do not both time and volume enter into the load factor?

A. Both of those things must be known to fix it.

Q. Now, where does the time element enter into your computations at all?

A. I have allocated capacity to the domestic commercial and lost gas based on their demands, maximum daily.

Q. But where does the time element come in on that?

A. 24 hours a day.

Q. Where does it come in on your computation of capacity? In other words, a customer that uses all of his gas in two months would give a different load factor than if a customer spreads it out over 12 months, isn't that true?

A. That's correct.

Q. Now, where does your time element come into your computation at any point?

A. As I say, these demands are daily maximum demands. Had I used weekly or monthly maximum demands, the answer might have been different. The time element enters into it when I have used the day.

Q. You think that satisfies the problem of load factor?

A. For the purpose of allocating costs, I do.

Q. That is all the consideration you gave it?

A. I have determined that the allocation of capacity on the basis of the peak requirements for the class of service on the maximum day gives effect to the time element of demand.

Q. That's what you have decided?

A. Yes.

Q. All right. Now, as a matter of fact, do you know what the load factor is on the Colorado-Wyoming system for 1939?

A. Well, the total volume of deliveries is shown in Column 6, Line 40, dividing that by 365—the number of days in the year—that 365, I believe—it's not a Leap Year—would give the average daily load on the ratio of that figure to the coincidental system maximum day delivery, and would give you the load factor for the system on a daily basis.

Q. All right now.

Mr. Lange: Right there, you are referring to Line 40, Table 2 of Exhibit 227?

The Witness: That is correct.

By Mr. McCreery:

Q. All right, now, where did you apply the load factor?

A. This exhibit does not apply load factor. It applies the loads themselves.

Q. You say it in effect applies it?

A. It gives effect to load factor.

Q. Just as though you had given a load factor proper consideration?

A. It does consider the load factor.

Q. I see. Now, this morning you testified that you didn't give consideration and that diversity cancels the load factor in figuring costs. Now, did you follow a different course in that connection between these two exhibits or not?

A. I don't recall the connection which I made.

Q. Do you know what the load factor on this system was in 1939?

A. I have just given the basis for determining the average daily load. The day of the maximum system deliveries—

Q. What was the maximum system delivery in 1939?

A. The calendar year 1939?

Q. Yes.

A. It occurred on March 29, 1939.

Q. And how much was that?

A. 13,432,000 Mcf.

Q. What was that amount again?

A. 13,432,000 on March 29—pardon me. I'm on the wrong table.

Q. I thought you were.

A. It occurred on May 17, 1939.

Mr. Lange: Now, let's have that Mcf. figure.

The Witness: 12,512 Mcf.

By Mr. McCreery:

Q. May what?

A. May 17th.

Q. 1939?

A. 1939.

Q. That is your understanding of what the peak day demand on this system was in that year?

A. Peak day deliveries.

Q. Peak day deliveries, not demand, that's right. Well, now, in your column 10, Table 2, have you considered the load factor involved in connection with each of those customers mentioned there, or did you treat them all alike?

A. When I allocate the capacity costs in proportion to the maximum demand of each of the customers, I gave consideration to the load factor.

Q. All right, what was the load factor of the Colorado Portland Cement Company?

A. You will have to specify the time.

Q. During this interval, this year that you are talking about.

A. The year 1939?

Q. '39.

A. The annual volume was 864,390 mcf, which divided by 365 would give the average load.

Q. Where did you bring that result into this exhibit of yours?

A. It is not necessary for me to calculate load factors because I allocated the capacity cost in accordance with the capacity requirements and that gives effect to the load factor.

Q. But you don't take peak demands on this company system as your starting point. Now, how can you get any

basis of load factor when you don't take the capacity of the system which you do not take?

A. I do not use the capacity of the system.

Q. No, nor the maximum delivery of the system, either one.

A. That is correct.

Q. And yet you have given full consideration to load factor?

A. Yes, load factors of the individual customers.

May I make myself clear by stating that the volumetric costs are assessed uniformly in accordance with the volume and the capacity costs are assessed in accordance with the capacity. Therefore, a customer with a poor load factor will have a low amount of volumetric costs as compared to a customer with the same demand having a higher load factor.

Q. Well, the volumetric cost is based on consumption, isn't it?

A. That's correct.

Q. All right, the consumption may be greater than the man with a better load factor—the consumption of the man with a lower load factor may be greater than that of the other customer with a higher load factor, and I understand you to say something inconsistent with that.

A. The customer with the low load factor?

Q. He may have a higher consumption.

A. As to size of customers. I was thinking of two identical customers with the same peak requirement. The customer with a low load factor would have a low amount of volume.

Q. On the total identical use or on the same peak demands?

A. On the same peak demands.

Q. That's right, but you don't find customers like that much, do you?

A. When you are determining load factor it is necessary to consider both the volume and the demand.

Q. Would your figures have been different if the Colorado Portland Cement Company had taken this amount set forth in Column 11 for ten days and then not taken anything else for the whole year?

A. I got the last part. Will you read that question?

(The question referred to was read by the reporter as set forth above.)

The Witness: You say, do I give effect?

By Mr. McCreery:

Q. Would you have gotten a different result had the demands they followed right through on the basis of their maximum until they had gotten their full volume and then taken none the rest of the year rather than going up and down throughout the year, would that have made any difference to you?

A. If the demands had been incurred on the dates that they were reflected here and the annual volume was delivered for the year, it would make no difference in this analysis as to what volume was delivered on what day so long as it does not change the demand figures. This exhibit does not give consideration to the particular day on which the volume is delivered.

Q. Does it make any difference to you what is the date of demand?

A. Yes.

Q. Whether it is summer or winter?

A. Yes.

Q. Did you give that consideration?

A. Yes, I have, because I have allocated the domestic and commercial customers as a group the proportion of the capacity costs which they demand of the facilities.

Q. As a matter of fact, do you know whether it is not true—whether or not it is true that on repeated occasions the biggest customers that this company has have been shut off in whole or in part to satisfy the demands of the domestic customers?

A. I recited the full data we had received from the company with respect to the shut-offs.

Q. Which you said you didn't use in this exhibit?

A. That is correct.

Q. Yet you are charging this particular customer on your setup here with capacity costs, a[illegible]ou not?

A. Yes. All of the industrials have been charged with capacity costs except the Valmont plant of the Public Service Company.

Q. And under the operation of this system the Colorado-Portland Cement Company is subject to shut-off and is shut off every year at various times and yet you are charging capacity—you are charging him a demand for capacity that he isn't entitled to. How do you justify that?

A. After allocating the capacity to the industrial customers as a group I had—I have distributed them to the individual industrial customers in accordance with their individual maximum use.

Q. All right.

A. Now, if an industry is shut off, then peak does not occur. Now, to the extent—

Q. But does occur in your table because you take them during the summertime so that you have given him a peak and charged him capacity on that peak demand and even though at a later time he doesn't get any.

A. I will complete my other answer first.

Q. All right.

A. To the extent that reductions are made, it would be appropriate to reduce the allocated capacity and the individual industry affected.

Q. Did you do it in this exhibit?

A. I think I have in the case of the Valmont plant.

Q. All right, have you in the case of the Colorado Portland Cement Company?

A. No, because on the day of the coincident system maximum delivered to industrial customers the Colorado Portland Cement Company took 3,504 Mcf.

Q. Because on that day they got that much gas and on many other days couldn't get any gas, you nevertheless charge plant capacity to them, nevertheless, just because on that day they did get that amount of gas?

A. That is correct.

Now, if you would refer to the years 1937 and 1938—

Q. I am referring to this exhibit. Now, you didn't charge any capacity against the Valmont plant because you called that a strictly emergency service?

A. That is correct.

Q. So that isn't comparable to either the Great Western Sugar Company or the Colorado Portland Cement Company, is that right?

A. They aren't directly—they aren't closely comparable.

Q. Now, you have stated it would be appropriate but you haven't done it, have you? You have still charged plant capacity against both of the two big *indistrial* users which have been repeatedly shut off to satisfy domestic requirements?

A. As I say, to the extent that the shut-off is carried out.

Q. You have got plenty of evidence of shut-off in this case and in this record today.

A. It may have been shut off on the day of the system peak but it was not shut off on the day of the industrial peak.

Q. What does that prove?

A. That is a fact.

Q. Well, what does it prove?

A. Well, in accordance with the method that I followed here, it is a part of the 6,969 Mcf.

Q. I appreciate that, but what does it prove? It simply proves that you have taken some arbitrary figures, doesn't it?

A. No.

Q. You have recognized the principle in your written statement. You haven't applied it here as I understand, because on this particular day they weren't shut off.

A. I thought I had made the point clear.

Q. No, you haven't to me yet.

A. That industrial coincidental demand was 6,969 mcf which occurred in January of the year 1939 and on that day the Colorado Portland Cement plant took approximately—as closely as we can determine—3,504 Mcf., and in accordance with the responsibility for that class of service, the gas was delivered.

Q. On that day?

A. On that day.

Q. But there were a good many other days that they had to be closed down because the demand of domestic customers made it necessary, that doesn't enter into your calculation, does it?

A. Not in this exhibit, no, it does not.

Q. And January was a mild month without a domestic peak, was it not, according to your testimony?

A. I would say it would be an average month.

Q. It was milder than February, put it that way.

A. I can answer that best this way; that during that period there was no weather quite so severe as it was in February.

Q. That's right, so there was more of a peak in February than in January.

A. That's correct.

Q. Of domestic.

A. That's correct.

Q. And the Cement plant was off in February.

A. That is correct.

Q. Now, you have charged, as I understand, capacity to a customer who can have gas except when somebody else wants it, or needs it. This somebody else being the domestic.

A. Well, that is a conclusion.

Q. Well, I am asking you if that is not what you have done?

A. There are a number of things involved in that matter and I haven't been able to give you the 1937 and 1938 figures to show why this condition that existed in January and February has been followed as it has. The basis of the apportionment of 5029 Mcf. recurring in other years, and as I stated, on December 8, 1937—a day on which the company delivered 12,239 Mcf., it delivered 47.44 per cent of that to the domestic and commercials and lost gas as a group and 52.553 per cent of it to industrials as a group, so as applied to the year 1937 on the basis of peak responsibility alone, the allocation of capacity costs would have been substantially the same at it was in the year 1939.

Q. On a day that you elect for that purpose?

A. On the day of the class peak responsibility.

Q. But in 1938 the Cement plant was shut down because of domestic demands, was it not?

A. December 8, 1937.

Q. And December 1938 it was also shut down for domestic demands?

A. Well, regardess of what was shut down or what was done, the capacity was used, 47 per cent for the domestic and commercial.

Q. On that day?

A. That's correct.

Q. But you don't consider a day when the demands of

the domestic did crowd the Colorado Portland Cement Company entirely out of the line, do you?

A. I'm sorry, I don't follow that. I don't get that.

(The question referred to was read by the reporter, as set forth above.)

The Witness: I don't consider a day—I think the difficulty is—if you can amplify that, I think I can answer it, but could you place some additional words with that? I do not consider the day—

Q. Well, you did not select for your consideration a day of which there are many upon which the domestic requirements crowded the Colorado Portland Cement Company entirely out of the line, do you?

A. No, sir, I do not select the day here, the class peak demand determines the day.

Q. Now, in your study, as I understand, down in the Arkansas-Louisiana, you didn't have any problem of shut-off in fact, did you?

A. Only in emergencies, that's correct.

Q. When there was a breakdown of the line or something of that kind.

A. Yes.

Q. But not from other customer demand.

A. That's correct.

Q. So you never dealt with that problem down there.

A. It was considered, of course. We didn't have to turn off the industrial customers.

Q. And you never as a matter of fact got the—got to the capacity of the line down there while you were there?

A. I believe they did.

Q. You believe—you aren't sure of it?

A. I know that they removed pipe with one diameter and installed pipe of a larger diameter for the purpose of handling increased load.

Q. You stated in your qualifications and experience that this plan that you proposed here was followed by the Master in Federal Court in Arkansas.

A. No.

Q. It wasn't followed, was it?

A. I stated that the method which I presented in that case—

Q. But not the method here presented?

A. The principles I present here are close to those principles.

Q. But it was not the method, was it?

A. The method I followed here I have made applicable, I believe, to this system and the method I followed there applicable to that system. The two aren't the same.

Q. And the method that you proposed down there, even that wasn't followed by the Master, was it?

Mr. Lange: That wouldn't be binding on this Commission or this Examiner either.

Mr. McCreery: He says it was and I want to check him on it.

The Witness: The method that I presented in that Arkansas case which I referred to in my qualifications was one of maximum demand as a basis of assessing costs of transmission facilities and the method was followed as contrasted to the other demand such as the deficiency assessment in which the costs are not allocated by classes but the revenues of the industrial customers are credited to the total revenue—total cost of service and system.

By Mr. McCreery:

Q. Well, now, Mr. Lyon, you represented the plaintiffs in that case, did you not? You were employed by the plaintiff?

A. It was the Arkansas Natural Gas Company.

Q. That company was the plaintiff in the case, was it not?

A. In the first case—

Mr. Lange: What do you mean by "plaintiff"? What are you—what stage of the proceeding are you talking about, Mr. McCreery?

Mr. McCreery: I am talking about the proceedings before the Master.

Mr. Lange: Well, if he knows what you mean by the word "plaintiff" all right.

Mr. McCreery: I think he knows, Mr. Lange.

The Witness: Well, I am not certain of that because the words "defendant" and "plaintiff" change in the course of the case.

By Mr. McCreery:

Q. All right, you were representing the company?

A. That is correct.

Q. So we'll leave it this way, and in this report the company is referred to as the plaintiff and the city is the defendant. Now, as a matter of fact, the Master didn't agree at all with the proposed method of figuring this that was offered by the company, did it?

A. The Master did not.

Q. Yes, isn't that right?

A. The Master accepted and recommended the deficiency assessment method.

Q. But he didn't take the method that you proposed?

A. That is correct—the Master.

Q. And, of course, to prove the Master's report—

A. But the Master report, as I recall, was worked out to utilize this method. The company relinquished its claim, as I recall, to the method that the Master had first developed and the method that the company presented was then followed in view of the fact, as I recall, that the—

Q. Supposing you just read this into the record. This may refresh your recollection.

A. I am reading from—

Q. Read it first to yourself and then I'll—

A. "—report an opinion of Master, together with conclusions of law and findings of fact, Jordan Sellers, special Master, in the District Court of the United States, western district of Arkansas, Texarkana division, in equity, No. 219, Arkansas-Louisiana Gas Company, plaintiff, versus the City of Texarkana, Arkansas, et al., defendants, Page 115, entitled—Page 159—entitled "Waiver of Method of Calculation."

"266 E. In communications from both plaintiff and defendant it is conceded that this method of calculation would show a much larger cost of gas at the town border than would plaintiff's commodity-demand method."

Q. Just a minute. I want to refer back and identify

whether that isn't the Master plan of procedure. What is meant by this method of calculation? Whose method is that?

A. I do not agree with your conclusions. I will read 266 E—266 B, rather, on Page 156:

"Unquestionaby these demand charges should be borne by the customer, but since it is impracticable to make each consumer pay the exact proportion allocable to his demand, how is it to be accomplished? Owing to my unfamiliarity with the accounting methods of utilities and the paucity of authority on the subject, I have been considerably at sea in this matter, so that after I had thought my report was completed, still having doubts upon the matter, I called counsel together for another discussion. While the result of this discussion has not been the adoption by me of the methods of calculation advocated by either party, it has resulted in a clarification of my ideas on the subject so that now I have definite convictions on how this matter should be treated, and that is as follows:

"1. The inclusion in the rate base of all properties of the pipe line and production units, including all pipe line specially constructed to serve industrial consumers outside of municipalities.

"2. The ascertainment of the total gas handled by the system.

"3. The deduction from this total of all gas sold to industries, including in this deduction Palmer and Dixie-Gulf gas.

"4. The deduction from the production and transmission expense of all net profits arising from industrial sales above cost of gas as delivered to the industries' meters; losses, if any, to be deducted also from expenses.

"5. The division of the net gas, as above ascertained, into the net expenses (including allowances for amortization, depreciation reserve and return) as ascertained by the deduction of net return from industrial sales from total expenses.

"6. The multiplication being the multiplication of the quotient thus obtained by the total domestic and commercial sales and allowable leakage of the distributing unit.

"7. The carrying forward of the last result into the expenses of the distribution unit.

"The above method eliminates all consideration of industrial gas except the application of net returns or losses from its sale to the reduction of the expense account of the production and transmission system."

Shall I continue?

Q. Yes.

A. "The elimination of this industrial gas, as stated above, can in no wise affect the domestic consumer. The amount of industrial gas sold is no concern of his as long as it is not sold below cost. The utility can certainly be trusted to see that none of this gas is so sold. It would be ridiculous to assume that, even to meet prices of competitive fuels, any of this gas would be sold at any actual loss, and the testimony shows that no such sales are made. If they have been, the net loss should be deducted from the expense account so that the domestic consumer would not be called upon to stand any of this loss."

Q. Give the background of the statement. If you want to read the rest of it then, you can.

A. The Stuttgart case follows and then there is the waiver method of calculation. That is the conclusion.

Q. Read that.

A. "In communications from both plaintiff and defendant it is conceded that this method of calculation would show a much larger cost of gas at the town border than would plaintiff's commodity-demand method. With this knowledge, plaintiff waives its right to the calculation I have approved, and requests that the lower amount arrived at by its method be used. This it has a right to do, since it inures to its disadvantage and to the advantage of the defendant. Therefore, without approving this method of calculation by which this cost is arrived at, I use this lower method in all subsequent calculations."

Q. Who is the plaintiff?

A. The Arkansas-Louisiana Gas Company.

Q. You were the engineer for that company in this proceeding?

A. Yes.

Q. And this was the proceeding in which it was suggested that you prepare a certain method of allocation?

A. That is correct.

Q. In this proceeding both the distribution company and the production and transmission company were one, were they not?

A. Not at the time of the beginning of the case.

Q. At the time of the decision of this case they were all one company?

A. Subsequent to the initiation of the case the companies were mergered.

Q. They were one company at the time of the trial?

A. I couldn't state that for certain.

Q. You better find out. I want to know.

Mr. Lange: He doesn't know the legal status of that case, what it was in that particular stage.

Mr. McCreery: Surely he knows it.

The Trial Examiner: Perhaps he can refresh his memory there.

The Witness: I am sorry but I don't see that in here.

By Mr. McCreery:

Q. Do you want me to show it to you?

A. I know that the Arkansas-Louisiana Gas Company was formed as the result of a merger of the several companies during the course of this rate litigation, and as I recall it, the case was—it says here:

"On June 2, 1934, the case was referred to me as Master."

Q. It is the last paragraph?

A. "Since the last mentioned date the Southern, together with the Arkansas-Louisiana Natural Gas Company, the Reserve Natural Gas Company and Public Utilities Corporation have been mergered under the name of the Arkansas-Louisiana Natural Gas Company and this new company has been substituted as plaintiff."

Q. This was the company at which time owned both the transmission system and the distribution system?

A. That is correct, but I believe that took place after the hearings.

Q. This was a hearing, wasn't it?

A. This was the result of the hearings.

Q. Before that the three companies were solely-owned subsidiaries of the Arkansas Natural Gas Company, were they not?

A. Yes.

Q. I have one or two more questions and then I will be through.

Under your method of computation shown in Table 1, Exhibit 227, it would appear that under your cost determination the Colorado-Wyoming Gas Company is selling its gas to industrial users, direct industrial users, at less than cost. Is that true?

A. The aggregate revenues are about $13,000 less than the total cost.

Q. So that business is being carried, as you computed it, at a loss?

A. No, not necessarily. The total cost includes a return.

Q. Then it is carried below cost?

A. Below total cost, below return.

Q. And it is not a full return on 6 per cent on that part of its business, is that correct?

A. That is correct.

Q. But, nevertheless, in your apportionment of transmission and maintenance you charge half the income tax to the industrials. Why do you do that? Is it a matter of judgment?

A. Are you referring to a table?

Q. Table 6.

A. Table 6?

Q. Yes.

A. I have allocated 50 per cent of the return together with taxes for volumetric cost.

Q. And 50 per cent capacity cost?

A. That is correct.

Q. And part of that goes to industrials of this 50 per cent income tax, even though under your computation of cost the industrials are not paying their way?

A. The method of allocating income taxes which I have followed allocates taxes along with the return. The same statement I made with respect to Exhibit No. 226, con-

cerning the Colorado Interstate Gas Company's method of allocating income taxes would likewise apply to this company.

Q. But in that exhibit you show a profit from their industrial customers and here you show a return above your cost figure and here you show a return below your cost figure.

A. That would be correct.

Q. That wouldn't make any difference in your allocation?

A. It would make considerable difference.

Q. It didn't in fact make any difference, did it? You allocated the 50 per cent in both exhibits, didn't you?

A. The accruals for Federal income taxes for both companies have been allocated uniformly to the operations of the several functional divisions upon the basis of the proportion of the net adjusted book cost of gas plant in service in each functional division as at December 31, 1939.

This procedure results in the allocation of this item uniformly upon the same basis as the return, and does not consider the existing differences between cost of service and revenues.

It is apparent that in allocating this item of expense to these customers whose revenues are to remain undisturbed, the apportionment of income taxes should be based on net income derived utilizing actual revenues, rather than an apportionment distributed uniformly with a determined amount of return for income taxes, being based on net income, or due in proportion to amount of return earned measured by revenues collected, rather than upon cost of service as set forth in this exhibit.

Upon determination of the income taxes appropriate for the year 1939, the allocation thereof would be in accordance with the net income which should have been enjoyed in the light of the determinations.

Q. You still in the light of the fact that the $13,000 is below your cost, apportion 50 per cent to volumetric and 50 per cent to capacity and so charge to the industrials in that manner a substantial portion of the income tax?

A. That is correct. The amount of income tax has been included—accrued and reported by the accounting Examiners.

Q. All right, I just wanted to know. Some of these items, as indicated by Colorado Interstate Gas Company, were allocated in your opinion, your judgment, weren't they, similarly as in the other case, Exhibit No. 226?

A. The amounts for compressor station, labor, and superintendents, Table 6, and annual accruals for depreciation—

Q. Those are judgment figures, aren't they?

A. —of compressing station equipment, have determined as being applicable to volumetric costs.

Q. That is an opinion, as to how they should be divided?

A. Yes.

Q. And these you haven't divided, your opinion is they should be divided?

A. That is correct.

Q. It is purely an opinion matter?

A. That is correct, and I have explained in connection with the previous Exhibit 226 the principles by which I have been guided in making those determinations. I have likewise explained that I have been guided in making the determinations of the allocation of 50 per cent return, together with Federal and State income taxes to volumetric costs.

Q. Do I understand that $249,326.38, Column 10, Table 1, Exhibit 227, represents the cost which you think this company is entitled to in connection with its industrial customers?

A. I don't pass an opinion as to what the company is entitled to.

Q. What do you put the figure in there for?

A. I merely determined the cost.

Q. That is their cost, including a 6 per cent return?

A. That is correct.

Q. And the same thing is true below of all of the other items in that column totaling 599-some odd thousand dollars?

A. That is correct.

Q. But you are not undertaking to work out an application of a rate reduction by these figures?

Mr. Lange: I think he stated time and time again he didn't intend for these exhibits to determine rates or to fix rates but merely to allocate costs of service.

By Mr. McCreery:

Q. Whatever item of income, whether properly or improperly taken out of the income account of the company by the auditors in their exhibits, are out of your exhibit, are they not?

A. These figures are exactly the same as the figures in the accounting Examiner's reports, and any changes in those figures would affect the conclusions in their determinations.

Q. And as a matter of fact, whether those figures in all those Examiners' exhibits are correct or not, you don't know?

A. I believe they are correct.

Q. You don't know?

A. I depend upon the accountant's exhibits for their accuracy.

Q. Your plea is purely because you haven't anything else to go on? You haven't examined the books at all, have you?

A. I have not examined the books.

Q. Did you examine the company's exhibits?

A. I don't believe that I have.

Mr. McCreery: That is all.

The Trial Examiner: Do you have any redirect, Mr. Lange?

Mr. Lange: Just a few questions I want to ask.

Redirect Examination.

By Mr. Lange:

Q. Mr. Lyon, you stated in the preparation of these exhibits, Exhibits Nos. 226 through 228, you utilized certain named and numbered exhibits, accounting exhibits, that had heretofore been presented in this proceeding by Commission's counsel?

A. Yes.

Q. I will ask you whether each of those accounting ex-

hibits get down through December 31st—strike that—whether any of those accounting exhibits go beyond December 31, 1939 that you utilized?

A. No.

Q. They do not?

A. That is correct.

Q. And Exhibits 226 through 228, not any one of them go beyond December 31, 1939?

A. That is correct.

Q. In fact, Exhibits Nos. 226 and 227 are confined to the year 1939?

A. That is correct. The volumes for the calendar year and the capacity for the 12 months ending June 30, 1939—

Q. Exhibit No. 228 covers your treatment of the cost of the summary of service for the year 1937, 1938 and 1939?

A. That is correct.

Q. So not any one of those accounting exhibits that you considered in the preparation of these costs of service, nor in the cost of service exhibits themselves, did you go beyond December 31, 1939?

A. That is correct.

Q. And I will ask you again at this time whether in the preparation of Exhibit No. 226 or Exhibit 227 you in any manner attempted to relate that—strike that—whether any of the exhibits, 226 or 227, were compiled in an effort to determine or fix rates?

A. No.

Q. Were those exhibits confined to the subject as indicated by the title "Allocation of Cost of Service"?

A. That is correct.

Q. That was the extent of your treatment of the subject?

A. That is correct.

Q. And in connection with Exhibit No. 226, you referred to the fact that the use of the 6 per cent rate of return as a percentage on Table 4, was just used by you without any particular significance attached to that particular percentage?

A. That is correct.

Q. But you had to use some percentage?

A. It was a good round percentage to use.

Q. Did you proceed in the same fashion in connection with Exhibit No. 227?

A. Yes.

Q. And that appears in Table 4 of Exhibit 227?

A. Yes.

Q. Now, you were asked by Mr. McCreery with reference to the use of certain Mcf. figures that you did not at that time have converted to a uniform pressure base. Is that with reference to interruption of service?

A. That was with respect to demands.

Q. Yes, demands. Did you subsequently find whether or not you did have the conversion?

A. Yes, I believe that I have. If we can locate the figures—as I recall the two figures quoted were the total system deliveries on February 9, 1939. As I recall the figure that I quoted was 12,672 Mcf for February 9, 1939 on a contract metering base. The equivalent volume on the uniform pressure base is 10,886 mcf, and for December 26, 1938 the figure quoted was 15,244 mcf, and the equivalent volume on a uniform measurement basis is 13,075 mcf.

Mr. McCreery: State that figure again, will you please?

The Trial Examiner: 13,075 mcf, the last figure.

Mr. McCreery: 13,075 mcf. What is that figure?

The Witness: That is the system deliveries on December 26, 1938 measured on the uniform pressure base of 14.65 pounds per square inch absolute.

Mr. McCreery: What was your final figure of February 9?

The Witness: 10,886 mcf.

Mr. McCreery: I think these figures are off.

By Mr. Lange:

Q. Are those the figures you checked, Mr. Lyon, after you converted them?

Mr. McCreery: Are those conversions to 14.65?

The Witness: No the previous figures were on contract measurement base, whatever the bases were.

Mr. McCreery: That is 12.9?

The Witness: No, they vary from 12.30 to 12.90 pounds per square inch absolute. They generally run lower than 14.65 pressure base. Therefore, in converting to 14.65 the volumes would shrink.

Mr. McCreery: I appreciate that, but the shrinkage isn't according to your computation, what your computation is.

Of course, we can stipulate the correct figures into the record if you want to later. We can have them checked both ways and stipulate what it is.

The Trial Examiner: I think perhaps that would be better than wasting time now.

Mr. Lange: That would be agreeable. I just wanted to afford Mr. Lyon the opportunity while he was here to put them in the record. We can stipulate them subject to correction.

The Trial Examiner: That is all of your redirect, Mr. Lange?

Mr. Lange: That is all.

Mr. McCreery: I have two more questions and then I am through, if I may have two more, Mr. Examiner.

The Trial Examiner: Surely.

Recross Examination.

By Mr. McCreery:

Q. Mr. Lyon, did you give consideration or effect in your study to the fact that at the present time the entire capacity of the Colorado-Wyoming system is required to satisfy peak day demands of domestic consumers?

A. No effect.

Q. Now, in Table 1, Column 8, Exhibit 227, you have assigned $59,898.94 capacity costs to direct industrials, have you not?

A. Yes.

Q. The answer is yes?

A. Yes.

Q. Now, we compute what the Colorado Portland Cement Company's part of that $59,898.94 is, which is approximately $42,500, and let's assume that that is it just for the purposes of this question.

Now, if the Colorado Portland Cement Company used the deliveries shown on Table 2, Column 11, of 59.70 Mcf. for only one day, for a day during the year, and had no other consumption during the year, would the $42,500 figure which is part of the $59,898.94, referred to in Column 8, Table 1 of this same exhibit, change or remain the same under your computation?

A. I believe it would change unless that demand occurred on the day of the coincident system maximum deliveries to industrial customers.

Q. Well, let's assume that it took place on that precise day, then it would not change?

A. Only under those circumstances, it would not change.

Mr. McCreery: That is all.

Mr. Lange: That's all.

The Trial Examiner: Do you have anything further, Mr. Dougherty?

Mr. Dougherty: I have no questions. I have asked Mr. Lange if I might have the working papers on which the maximum demand day was computed for Colorado Interstate Gas Company in Exhibit 226, and I have also requested it for the memorandum. That need not hold him up. I may not have any questions, and if so we can do it in Washington.

Mr. McCreery: The working papers and the memorandum will be left here when he leaves tonight?

Mr. Lange: Yes.

Mr. McCreery: So that they will be available to us as well?

Mr. Lange: They will be available.

The Trial Examiner: Very well. I understand, however, that Mr. Lyon is to be excused from the hearing?

Mr. Lange: Well, now, there is this thing about the ex-

hibits themselves: Mr. Dougherty made the statement that if he did want to direct some further cross examination he would do it in Washington. We didn't want these exhibits to hang fire. In other words, we wanted to see that the offer on those exhibits was made.

Mr. Dougherty: Well, you can offer them and I can probably look that stuff over and let you know. I don't believe that it will be necessary to have him here to help on the exhibits in any way, Mr. Lange.

Mr. Lange: Very well on that, because we didn't want the exhibits to hang fire.

The Trial Examiner: Of course the exhibits have not as yet been offered.

Mr. Lange: We were just coming to the point where I wanted to make the offer.

The Trial Examiner: I understand Mr. Dougherty to indicate that it will not be necessary to hold up action on the exhibits.

Mr. Dougherty: No.

The Trial Examiner: In view of his request.

Mr. Dougherty: No.

Mr. Lange: We want to offer them at this time, Mr. Examiner.

Mr. Dougherty: I object to the Exhibits 226 and 226-A.

Mr. McCreery: I object to 227 and I would like to put in the record some formal objections to that exhibit, if the Examiner please. Of course I am not prepared to read them into the record at this time, which can be done, say, Monday.

The Trial Examiner: Well, supposing we take them up then. I don't think, Mr. Lange, it will be necessary to hold Mr. Lyon. Supposing we take these exhibits up, we'll say on Monday.

Mr. Dougherty: That's all right.

Mr. Lange: All three. Did anybody have any objection to 228?

Mr. McCreery: Yes, 228 similarly.

The Trial Examiner: We'll take them all up on Monday, and Mr. Lyon, you are excused from the hearing.

(Vol. 81, pp. 12083-12149.)

* * * * *

Mr. McCreery: If the Examiner please, with respect to Exhibit No. 227 and 228, Colorado-Wyoming Gas Company objects to the admission of those exhibits, first on the ground they are not responsive to the Natural Gas Act; second, that they are based on a non-existent income and non-existent property and non-existing expense charged to that property by the witness who presented the exhibit;

Furthermore, that the basic data in the exhibits is not accurate as shown by cross examination and on the face of the exhibit;

Further, that the entire theory of the exhibit is contrary to law; contrary to the actual operations and corporate setup of the Colorado-Wyoming Gas Company in that no consideration whatever or effect is given to the relation between domestic sales and industrial sales or sales for resale and direct industrial sales which distinction is recognized in the jurisdictional provisions of the Natural Gas Act and which is in fact a basis upon which the business of the Colorado-Wyoming Gas Company is carried on, there being preference for domestic and resale gas over direct industrial gas in fact and under the contracts;

Further, it appears that peak demands of the entire demands of the system is required to supply peak demands of resale and domestic customers as compared with direct industrial users.

For these various reasons the exhibit is objected to as being irrelevant, incompetent, immaterial and prejudicial.

The Trial Examiner: I might state with respect to all exhibits of Mr. Lyon, the Examiner will give very close study to the basis of the objection brought out by respondent's counsel, however, it doesn't seem to the Examiner to be harmful to admit the exhibits on that basis.

Therefore, the objections will be overruled and Exhibits 226, 226-A, 227 and 228 will be received.

(Exhibits 226, 226-A, 227 and 228, Witness Lyon, were received in evidence.)

(Vol. 83, pp. 12299-12300.)

The witness defined "volumetric costs" as "costs incurred predominately in proportion to the volume of gas handled, irrespective of the rate of delivery." "Capacity costs" he defines as "costs of a consistently recurring nature which may vary with the rate of gas delivery and are independent of the operating load factor." "Customer costs" he testified are "costs incurred to render special service to known customers, attributable only to the service rendered to such customer." (Vol. 81, pp. 12,004-12,005.)

Company Exhibit 245A (Appendix this Record)

V. COMMENTS ON EXHIBITS 227 (EX. 245A).

J. L. WILLARD, rate and valuation engineer, also testified in connection with Company Exhibits 245 and 245A for Colorado-Wyoming Company, with respect to Commission Exhibit 227, "Colorado-Wyoming Gas Company: Allocation of Cost of Service, 1939".

The witness testified:

"A. • • • In connection with Mr. Lyon's Exhibit 227 I have determined through calculation the amount of depreciated plant as reflected in Exhibit 199 that has been charged in Exhibit 227 to direct industrial customers. Through a charge of transmission volumetric costs, Mr. Lyon assigns to the direct industrial customers a return calculated at 6 per cent in the amount of $18,025.89 to the direct industrial customers.

"In the caption of transmission capacity costs, Mr. Lyon assigns to direct industrial customers an amount of return calculated at 6 per cent, the amount of $15,112.28 and to his distribution costs he assigns a return of $584.48 to the direct industrials.

"The total of these three items of return calculated at 6 per cent amounts to $33,722.65.

"Q. They actually amount to that amount, not the 6 per cent? They amount to that and capitalized at 6 per cent they produced the second figure?

• • • • • •

"*The Witness:* • • • That is the total amount which Mr. Lyon has assigned to direct industrial customers. He calculated his return on the basis of 6 per cent of the

plant. By capitalizing the amount of return assigned to direct industrials of 6 per cent I arrived at $562,044.14 which is the amount of plant charged by Mr. Lyon to direct industrial customers through his method. This amount results in a percentage of the total investment used by Mr. Lyon of 43.58 per cent."

(Vol. 83, pp. 12,442, 12,443.)

His position, as above stated, is summarized as follows:

	"Return At 6%	Equivalent Investment
Transmission—Volumetric Costs	$18,025.89	$300,431.50
Transmission—Capacity Costs	15,112.28	251,871.31
Cost of Distribution	584.48	9,741.33
Totals	$33,722.65	$562,044.14

Note: 'Equivalent Investment' above stated means the total plant as adopted in Exhibit 227 from Exhibit 199. The percentage of total plant is 43.58%."
(Ex. 245, Statement No. 1.)

Detail of his computation by which he shows that $562,044.12 of plant and investment is allocated and charged to industrial customers, by Commission exhibit is set forth in Exhibit 245A. (See Appendix.)

Company Exhibit No. 105 (Appendix this Record).

REVENUE EXPENSE, AND INCOME OF COMPANY.

(1) *All Revenue, Expense and Income—1929-1940, inclusive, actual; 1941-1949, inclusive, projected.*

(a) *Operations 1929-1939* (Ex. 105).

H. P. DAVIS, Secretary of Colorado-Wyoming Company presented Exhibit 105 (See Appendix), which he described as follows:

"The following statements have been compiled from the books and records of the company and reflect accurately the matters therein set forth as shown by such books and records.

"Statement No. 1 is balance sheet of the company for the 12 months period ending September 30, 1940.

"Statement No. 2 shows the earnings of the company for the same 12 months period ending September 30, 1940.

"Statement No. 3 is a tabulation of the volume of gas sold in Mcf. for the years 1929 to 1939, inclusive. The character of the sales and the volume of each type of sale is detailed. The year 1929 is adopted as the first year embraced in the statement for the reason that, in that year natural gas was first delivered to the company by the Colorado Interstate Gas Company.

"Statement No. 4 reflects the gross revenue for the same period of years, 1929 to 1939, inclusive, similarly broken down as to character and types of sales."

(Vol. 24, pp. 3288, 3289.)

Gas Sales in M. c. f. (at contract pressure base) for the years 1929-1939 shows the volume and growth of the Company's business during that eleven-year period (Statement No. 3, Ex. 105). For the first and last years of the period the totals are:

Character of Sale	1929 In M.c.f.	1939
Sales for Resale	900,802	1,706,411
Sales to Public Authorities and Misc. Main Line Sales	9,449	41,117
Industrial Sales (direct)	708,989	1,584,918
Total	1,619,240	3,332,446

Gross Revenue for the years 1929-1939 is shown in Statement No. 4, Exhibit 105. For the first and last years of the eleven-year period the totals are:

	1929	1939
Sales for Resale	$270,612	$579,578
Sales to Public Authorities and Misc. Main Line Sales	3,319	14,870
Industrial Sales (direct)	120,076	226,491
Total	$394,007	$820,939

Earning Statement—for 12 months ending September 30, 1940 (Statement No. 2, Ex. 105), as broken down in "Supplemental Detail" (Ex. 114) shows in summary:

Character of Sale	M.c.f.	Revenue
Sales for Resale	1,800,390	$614,646.53
Sales to Public Authorities	25,134	10,049.20
Industrial Sales (direct)	1,347,843	192,924.83
Total	3,173,367	$817,620.56

of which totals "Sales to Associated Companies for resale" were 1,614,549 M. c. f. and $546,807.88.

Operation and Maintenance, including taxes and regulatory Commission expense, during that twelve months' period, as reflected in Exhibits 105 and 114, were:

Purchased Gas	$515,246.17
Operation:	
Transmission	7,462.27
Compressing	20,584.61
Measuring	7,334.08
Maintenance:	
Transmission	6,851.91
Compressing	2,022.26
Measuring	223.17
General taxes, including Colorado Income Tax	33,439.37
Federal Income taxes	25,388.13
Regulatory Commission expense	10,816.89
General Expenses	28,307.07
Gas used by Company	3,660.99
Total	$659,100.78

Q. Now, referring back to your Exhibit No. 105, under the balance sheet dated September 30, 1940, under Current and Accrued Assets, Receivables from Associated Companies, can you explain that item?

A. That represents current cash due from sale of gas to associated companies, the contract for which were shown in a previous exhibit.

Q. Over what periods do these receivables occur?
A. They are monthly billings.
Q. Monthly receivables?
A. Monthly billings.
Q. Monthly billings?
A. Yes.
Q. And the companies—did you name the companies?
A. Cheyenne Light, Fuel & Power Company and the Public Service Company of Colorado.
Q. The Cheyenne Light, Fuel & Power Company?
A. Yes.
Q. That is the company that distributes gas in the City of Cheyenne?
A. Only in Cheyenne.
Q. Only in Cheyenne?
A. Yes.
Q. It is purely a distributing company?
A. Yes, sir.
Q. Now, the next item of Materials and Supplies, what does that represent?
A. That is just our normal balance of working material on hand, repair parts and operating supplies. This is just about the average balance that we maintain at all times.
Q. In the balance sheet of September 30, 1940, what is included under Deferred Credits, Customers Advances for Construction?
A. That is an item of cash deposited with us by a customer for which we constructed certain properties and the item was to be refunded by them from time to time as they used gas.
Q. What customers are those?
A. I believe that happens to be the International Smelter—that was a deposit made by the United States Metals Foundation.
Q. All right, what does it represent? What was the deposit made for?
A. Primarily it was to assure us of the firmness of our contract when we made certain investments in order to serve them.
Q. Does that constitute the total item of $2982.14?
A. That is right.
Q. That is actually an item refundable to them?
A. That particular outfit has passed out of the picture

but the people who were financing them, who still retain the property, we have given them every opportunity to come in there and pick up in some fashion or other and do business with us and in that way they could enjoy that refund.

Q. What company is that?

A. It is Associate—I don't know how they term them, but Mr. Weckback was one of the local men who was a large stockholder in that.

Q. As of September 30, 1940 they didn't come in as you hoped they would?

A. No.

Q. As of September 30, 1940, the date of the balance sheet, is that proper accounting practice to include it under Deferred Credits, as you term it?

A. I don't—

Q. Is that still a deferred credit at that place on the balance sheet?

A. We haven't finally determined it wouldn't be refunded at some future date. When we do determine that we will put it in another place.

Q. As of September 30, 1940, the status it occupied then as an accounting method wouldn't properly have been included under Contributions in Aid of Construction?

A. That would be termed as non-refundable.

Q. Are the physical services still there?

A. Yes, they have never availed themselves of it.

Q. Are you sure the pipe for serving the company with gas is still in place at that point?

A. Yes.

Q. And no one has made themselves available for those services?

A. No, they haven't.

Q. There is no definite expression from anybody that they will?

A. There has been a number—I would say there have been prospects which haven't yet materialized, but we still hope they will.

Q. Just exactly what is the situation there with reference to the probability of it materializing?

A. Of course, the people who own the property are making every effort to secure some kind of an organization to go in there and operate it.

The Trial Examiner: What sort of property is it?

The Witness: It is a smelter.

The Trial Examiner: Iron ore or gold ore?

The Witness: Originally they planned to smelter all grades of ore, high, low, or any sort of metal, extracting everything from gold on up.

By Mr. Lange:

Q. How long has it been since it has been operated?
A. Probably two years.
Q. Probably two years?
A. Something like that. I can't recall exactly.
Q. You still have hopes of it materializing?
A. We hope it will, yes.
Q. As an accountant, do you still maintain that after two years when you construct a balance sheet as of September 30, 1940, with the item in that status, it still should be carried as a deferred credit rather than as a Contributions in Aid of Construction?
A. It would probably be our privilege to transfer that down to Contributions in Aid of Construction if we so chose.
Q. Wouldn't it be good practice?
A. Oh, not if you had decided that you would still refund that in case—
Q. It has been in that uncertain status, as you state, for two years. Suppose it continues on and on, when will it reach the point when you will decide that good accounting practices wouldn't prompt the keeping of that as a deferred credit the way you put it on the balance sheet?
A. I would say if nothing else develops within the next year we could probably do something at that time.
Q. Next year?
A. Next year. That should be enough time. Three years ought to be long enough.
Q. Two years wouldn't be long enough?
A. No.
Q. But three years would?
A. I believe so.

The Trial Examiner: What is the ordinary practice in a situation of that nature, Mr. Davis?

The Witness: Well, it would be transferred immediately on determining it was no longer refundable. We haven't chosen to call it that yet.

The Trial Examiner: I presume it depends upon the circumstances prevailing at the time the matter is under consideration?

The Witness: That is right.

The Trial Examiner: I think at this point we will stand in recess for five minutes.

(At this point a short recess was taken, after which proceedings were resumed as follows:)

The Trial Examiner: The hearing will be in order.

By Mr. Lange:

Q. Mr. Davis, referring to the balance sheet of September 30, 1940, Liabilities and Other Credits, you have under Reserves, Reserve for Depreciation of Gas Plant, $504,482.22. How did you arrive at that figure?

A. That is the remainder in account at that date after certain charges and credits from time to time.

Q. All right, what rate of depreciation has the company set up in that account?

A. Well—

Q. I have reference to during the past year.

A. We have no specific rate.

Q. How did you arrive at the proper depreciation you set up each year?

A. There are more or less arbitrary amounts set up from year to year based upon what we felt was needed at that time.

Q. Based upon what your company officials felt was the need at that time?

A. That is right.

Q. How did they attempt to arrive at what was the need at that time?

A. It was a rather difficult thing to arrive at, if I might say so.

Q. What basis did they use or what method of approach did they employ?

A. At various times they used different approaches and

different percentages. At one time I believe we used four per cent straight line depreciation.

Q. During what year or years was that?

A. I think that prevailed for several years subsequent to 1925.

Q. How many years and what years? Can you give them?

A. I don't know that I can offhand.

Q. Do you have that in your work sheets here?

A. I'm not sure. Apparently during the early years of the company we were making an effort to substantially accrue an amount equivalent to what the Federal Income Tax Bureau would permit as a deduction, and later we—

Q. Well, now, let's see, what years are you talking about now?

A. Well, from about 1925 up to about 1929.

Q. '25 to '29?

A. Yes.

Q. Now, what did you set up for the first year?

A. 1926?

Q. Yes.

A. We set up $21,244.

Q. One thousand—

A. $21,244.

Q. And how did they arrive at that?

A. I don't recall now.

Q. Well, who determined what amount was to be set up that year?

A. The officials of the company.

Q. Well, in consultation with anyone else?

A. I presume it was, yes.

Q. With whom?

A. With their valuation department.

Q. All right, did you participate in those conferences?

A. No, I didn't.

Q. And who of the officials of the company participated in those conferences?

A. Well, I couldn't say. That all took place at the New York office at that time.

Q. The New York office?

A. Yes.

Q. And the advice was sent down to you and you entered the figures on the books of the company?

A. That's right.

Q. So you, then, as the man in charge of the accounts of the company, had no voice in the determination of that depreciation figure?

A. No.

Q. Well, was any inquiry made of you as to your views about it?

A. I don't recall that there was. I furnished them certain information in connection with it; that is, the plant values at the time, and they used those in their studies.

Q. You say these figures were arrived at at the New York office. Did the company at that time have any service contract with the predecessors of Petroleum Advisers, Inc.?

A. At that time the parent company was Cities Service Company.

Q. And who was the predecessor of Petroleum Advisers, Inc. at that time?

A. Henry L. Doherty & Company acted in that respect, the engineering company.

Q. And the company had their services under contract at that time just like you have Petroleum Advisers, Inc. at the present?

A. Yes.

Q. And what was set up or submitted to you for setting up on the company's books in that account for the next year?

A. I was usually furnished with a figure at approximately the beginning of the year that would be used during the coming year.

Q. What figure was furnished you at the beginning of the next year?

A. Well, the following year I set up $17,895.

The Trial Examiner: That was the year 1927, Mr. Davis?

The Witness: Yes, sir; so I presume that was the figure furnished to me.

By Mr. Lange:

Q. And you made no investigation yourself as an accountant as to the basic figure that went into the computation of this $17,000 item?

A. No, I didn't question the item at all.

Q. You made no independent computation of your own?
A. I didn't feel it was necessary.
Q. And who submitted that to you for entry?
A. I think Mr. Jones—Paul R. Jones, Secretary of Cities Service Company, officially made the direction.
Q. Out of the New York office?
A. Yes.
Q. And there was no explanation in the letter of communication to you as to a breakdown of that item?
A. No.
Q. And you, upon receipt of it, entered it on the company's books?
A. I proceeded to accrue it month by month.
Q. To accrue it month by month?
A. Yes.
Q. Now, what figures did you set up for the next year?
A. 1928, $23,070.
Q. $23,070?
A. Yes.
Q. And why did you set up that figure at that time?
A. I presume it was furnished to me.
Q. By the same—
A. By the same people.
Q. The same people out of New York?
A. Yes.
Q. And you made no independent investigation of it from an accounting standpoint?
A. I had no occasion to, no.
Q. And entered it on receipt?
A. I accepted it, yes.
Q. And what did you do for the following year?
A. I set up $25,749.
Q. And did you make any accounting investigation as to the basis of that figure?
A. No, I didn't recalculate it, if that's what you mean.
Q. Yes, or analyze it with the view of ascertaining the basis on which it was calculated?
A. It appeared to be a sufficient sum at that time.
Q. Were you an official of the company at that time?
A. I was secretary.
Q. And as secretary and as the man in charge of the accounting of the company's books and records, you made

no investigation of your own as to the method at which the figure was arrived at?

A. No, I had no occasion to. The figure was furnished to me by the officials and I used it.

Q. In other words, as an accountant, you used this figure purely as a judgment figure arrived at by somebody else?

A. Someone who perhaps had better judgment than I did on it.

Q. In your accounting work with this company, have you made any accounting determinations of proper depreciation rates to be applied on property of this character?

A. We have probably made a number of such, but we perhaps didn't apply them.

Q. Were they made on your own independent basis or—

A. Well, from our own viewpoint.

Q. From your own viewpoint?

A. Yes.

Q. Well, how did you approach the problem when you made this independent calculation?

A. I don't recall now what methods we did use. We were just making some tests—test checks, perhaps, for our own purposes.

Q. For your own—

A. We weren't comparing them with theirs or not submitting them for their consideration.

Q. In other words, they had submitted their figures first and then you would for your own testing purposes attempt to construct a basic figure and see how it would come out?

A. The whole purpose of the account was to endeavor to set up sufficient money to provide for replacements, extraordinary items as they might come up.

The properties being more or less new it was difficult to gauge the amount of money which would be required at any one time.

Q. Yes.

A. So you might say that in a sense we were feeling our way along, trying to arrive at an equitable accrual which would fit the occasion.

Q. Were you ever called upon as the accountant for the company to submit whatever figures you thought were the correct ones to estimate the proper accruals?

A. I never thought it in my province to volunteer anything of that sort.

Q. No, not as a voluntary statement but as a request from the New York office.

A. No, I don't recall that they did.

Q. Now, then, as I understand it, you were in supervisory charge of the company's books and records here, weren't you?

A. Yes.

Q. And the company's books and records are all kept at the Denver office.

A. That's right.

Q. So whenever the matter of accounting practice in any particular phase of the company's operations was at issue, the New York office would advise you in what manner to proceed?

A. Yes.

Q. And you would proceed in accordance with their instructions?

A. Yes.

Q. Even in all accounting matters like the matter of what should be set up as a proper depreciation accrual?

A. Yes.

Q. How long since the company's books and records or all corporate records were kept in the New York office?

A. They never were kept in the New York office.

Q. Not any of them?

A. The minute books were the only things.

Q. The directors' minute books?

A. Yes.

Q. Were kept for directors' meetings?

A. Yes.

Q. That was kept in New York?

A. Yes.

Q. Where is that kept now?

A. It is in the Denver office, my office.

Q. Since when has it been kept at the Denver office?

A. Since about August 1939, I believe.

Q. And were the meetings of the Board held in New York prior to that time?

A. Yes.

Q. And where are they held now?

A. In Denver.
Q. In Denver?
A. Yes.
Q. Now, what was the next year? Let's see, we had 1928 for the last one.

The Trial Examiner: 1929.

By Mr. Lange:

Q. Now, for the year 1930, what reserve did you set up?
A. $66,000.
Q. $66,000?
A. Yes.
Q. And you made no independent investigation of your own as an accountant or as an official of the company as to whether that reflected the proper accrual?
A. No.
Q. For that year?
A. No.
Q. That figure was also submitted to you from the New York office?
A. Yes.
Q. And pursuant to directions from them you entered it on the company's books and entered this figure that you have set up here—
A. Yes.
Q. On the balance sheet of Liabilities and Other Credits in Exhibit No. 105?
A. Yes.
Q. Now, for the year 1930, what figure did you apply?

The Trial Examiner: 1931.

By Mr. Lange:

Q. 1931.
A. $56,672.02.
Q. That figure was received and applied by you in a similar fashion?
A. Yes.
Q. And for 1932?
A. In 1932 we set up $32,183.
Q. That was received and applied by you in the same fashion as the others?
A. I presume it was.

Q. 1933?
A. $48,000.
Q. For 1934?
A. We accrued $48,000 for 1933, 1934, 1935 and 1936.
Q. The same amount for each year?
A. Yes.
Q. Why did that become static during that period?
A. We felt that was sufficient accrual for the purpose, and at the end of 1936 it appeared—
Q. You mean, when you speak of "we," you mean the company reached that conclusion and submitted those figures to you?
A. Yes. We allowed that to continue at that figure, and then for 1937 it appeared that we were accruing more rapidly than our needs were; so that the amount was—
Q. Wait a minute. In 1937 it appeared that you were accruing it at a greater or more rapid rate than your needs were?
A. Than our needs were.
Q. Well, what caused that change, then, to be noted? What brought about that change?
A. Well, our experience had shown us by then that our replacements had not materialized as rapidly as we thought, perhaps, they would.
Q. In other words, the judgment figures previously used were pretty much out of line?
A. Well, they were high in comparison with later results.
Q. Very much higher than the company's experience had shown?
A. Yes.
Q. And then for this next year you proceeded on what basis?
A. 1937 on, we have held it at $28,000 a year.
Q. $28,000 a year?
A. Believing that is ample for the purpose.
Q. And is that a rate considerably lower than what you had set up previously?
A. Oh, yes.
Q. About one and a half per cent?
A. Something like that.
Q. As against what was the other?

A. Four per cent, straight line.

Q. And you have been setting that up now ever since?

A. Yes, four years.

Q. And have you been called upon to ascertain and report to the New York officials as to how that rate is working out in actual experience?

A. Well, we no longer report to the New York officials. They aren't the parent company at this time.

Q. Well, whom *to* you report to?

A. We don't exactly report to anyone. We're an operating unit ourself.

Q. You are an operating unit yourself?

A. Yes.

Q. And who now determines the proper rate of accrual that you should set up on your books for depreciation?

A. I wouldn't say that there has been any determination recently of accrual. We just continue to use this nominal figure.

Q. Well, without any investigation or without any conference to determine whether or not it is adequate or in excess of your requirements?

A. It has proved to be adequate and a survey of our immediate needs shows that it will take care of us for some time.

Q. Well, when that question would come up for determination, who would participate in the conference and work out what would be considered a proper figure?

A. Well, we would probably work that out in conjunction with the Petroleum Advisers, Inc.

Q. Petroleum Advisers, Inc.?

A. Yes.

Q. That's what would probably take place?

A. Yes.

Q. You just stated a moment ago that you are now an independent company. I thought a while ago you didn't know what the stock ownership was in so far as the other companies are concerned.

Mr. McCreery: I think you have misapprehended his statement. He said they were an independent operating unit. He didn't say they were an independent company.

By Mr. Lange:

Q. What do you mean by "independent company"?

A. I mean operating on our own initiative. The officers are all local employes of the company.

Q. Who are the officers of the company at present?

A. Mr. Shortess is Vice President, myself as Secretary, Mr. Hurdle is Treasurer. The President's office is temporarily vacant.

Q. And who constitutes the Board of Directors?

A. The same four, plus Mr. Thackrey.

Q. The same four plus Mr. Thackrey?

A. Yes.

Q. And what is the stock ownership in each of those men?

A. None.

Q. No stock ownership?

A. No.

Q. What is the stock ownership in each of the officials of the company?

A. None.

Q. The directors' meetings, when you elect your officers, those directors' meetings are held here in Denver now?

A. Yes.

Q. How is the stock of the company voted and by whom?

A. The stock is not voted at the directors' meeting. It is voted at the stockholders' meeting.

Q. I mean the stockholders' meeting.

A. I don't attend the stockholders' meetings.

Q. You don't attend the stockholders' meetings?

A. No.

Q. Which of the officers of your company attend the stockholders' meetings?

A. The Assistant Secretary conducted the last meeting.

Q. Who is he? What is his name?

A. Mr. Wedum.

Q. Those meetings are held in Denver?

A. Not that last meeting, no.

Q. Where was that held?

A. New York City.

Q. You stated, though, that you never have attended any of them and hold no stock yourself?

A. No.

Q. Now, then, during the last two or three years that you set up these accruals on the basis as stated by you,

the accrual for depreciation, as Secretary for the Company, as its chief accountant, have you made any independent computations of your own to check the accuracy of the accruals you have set up in the light of the company's experience?

A. I don't just follow you on that.

Q. Well, I'll reconstruct it, then.

During the past three years that you have set up accruals on the basis as indicated by you; what check have you made as an official of the company and as its chief accountant with reference to the accuracy of those accruals in the light of the company's actual experience?

A. Well, I won't say that I have made any, what you might term computations in that respect. I though about it from the angle that I spoke of a minute ago which was that we had considerable sum accrued there which we thought was sufficient for the present, but we didn't feel like discontinuing accruals altogether. The amount we are using we felt was a fair balance either way; that is, from either angle you looked at it; so we just continued on that basis.

Q. I see. Well, what is your policy going to be from here on out with reference to the proper accruals that are to be set up?

A. Well, that probably will be governed a lot by what happens here in this room.

Q. Governed a lot by what happens in this room?

A. Yes.

Q. In this proceeding?

A. Yes.

The Trial Examiner: You mean after we get away from this room.

The Witness: Well, the result of it.

By Mr. Lange:

Q. Well, now, on this same balance sheet you have got under Liabilities and Other Credits an item $9,193.83 as contributions in aid of construction.

A. Yes, sir.

Q. What does that item represent?

A. That is a combination of several items, the principle

item being approximately $7,000, I believe. That was contributed by the Colorado Interstate Company.

Q. The Colorado Interstate Gas Company?

A. Colorado Interstate Gas Company, in consideration of certain investments that we made over here in Denver.

Q. What is that investment?

A. We constructed two branch lines to serve some small communities there that couldn't be feasibly served from the Denver system.

Q. Where? Near the outskirts of Denver?

A. Yes, on the western—

Q. Have they any corporate name?

A. I believe they term them Edgewater and Mount Air.

Q. What was the nature of the investment?

A. A pipe line to serve those territories.

Q. A pipe line to serve the territory?

A. Yes.

Q. You mean just the lateral or also the—

A. The high pressure lines, not the distribution.

Q. Not the distribution?

A. No, just the high pressure lines.

Q. Who distributes that?

A. Public Service.

Q. Public Service Company of Colorado?

A. Yes.

Q. Over what period of time was this one item of $7,000?

A. $7,000—

Q. Was that a single item then?

A. Yes.

Q. What were the other items that constituted the total of $9,193.83?

A. There is an item of $850 contributed by Kuner-Empson Company, when we built the branch line to serve their plant near Brighton.

Q. Where is that located?

A. The Town of Brighton which is about twenty miles northeast of Denver.

Q. In the State of Colorado?

A. Yes.

Q. And is gas distributed there?

A. In the town, yes.

Q. By whom?

A. Public Service Company.
Q. What was the name of that customer?
A. Kuner-Empson Company.
Q. Kuner-Empson Company?
A. Yes.
Q. Isn't that a direct sale customer?
A. That is an industrial plant that we serve there.
Q. Industrial plant?
A. Yes. The plant is outside of the town itself.
Q. It is outside of the town itself?
A. Yes.
Q. And what size line is utilized to serve that plant?
A. I believe a 2-inch branch line, if I remember right.
Q. When was that line constructed?
A. Some three or four years ago. I don't recall now.
Q. Is it presently in service?
A. Oh, yes.
Q. To that direct line industrial?
A. Yes.
Q. That constitutes the total of that item?
A. There is an item of $330 from the Lutheran Sanitorium that was contributed to enable us to build a branch high pressure line to that sanitorium and render service.
Q. Where is that sanitorium located?
A. I believe it is on West 38th Avenue.
Q. Is that a customer of Public Service Company of Colorado?
A. Yes.
Q. And how long has it been on the line?
A. Well, this particular line I believe was constructed about a year ago, or some such time.
Q. Any other item in that total?
A. Then there is an item of $407 which I will term contributions for main line taps, where we render individual take-off on our main line, where we required a contribution to offset the cost of such tapping.
Q. On your main trunk line?
A. Yes.
Q. All right, what else is in that item?
A. That's all. That should add up to $9,183.
Q. Do you still have any main line direct sale customers of your own?
A. Only industrial?

Q. Only industrial.

A. Yes.

Q. Well, haven't you turned all of the others over to the Public Service Company of Colorado?

A. Public Service Company of Colorado serves all direct main line service other than industrial.

Q. Referring to this statement you made a moment ago with reference to the last annual stockholders meeting, you said the assistant secretary participated in that. Where does he reside?

A. New York City, I believe.

Q. And what is his name?

A. Wedum.

Q. Does he have any other position or any position with any other companies?

A. I can't say.

Q. Do you know him?

A. Only by correspondence.

Q. Well, did you ever have occasion to receive any letters from him in connection with your work?

A. No, only in connection with the secretarial end of it.

Q. What work did he perform in so far as you know in connection with this company or any of the other companies?

A. He has been, I believe, assistant secretary of this company for a number of years, and I believe it was his usual practice to conduct the stockholders meetings.

Q. Well, as assistant secretary, what has been his instructions to you, if any, or have you given him instructions?

A. I have had no particular contact with him other than in connection with the meetings and minutes, and so forth.

Q. And how long has he functioned as assistant secretary?

A. I believe for a number of years. I can't say now without looking at the minute book.

Q. Does he ever come to Denver?

A. No.

The Trial Examiner: What was your answer?

The Witness: No.

By Mr. Lange:

Q. Now, on your earnings statement in Exhibit 105, that is also for the twelve months ending September 30, 1940?

A. Yes.

Q. The first item under Gas Sales you have listed as Industrial Sales.

A. Yes.

Q. Are those direct industrial sales?

A. That's right.

Q. And include all of the direct industrial sales?

A. Yes.

Q. That's $192,660.82.

A. Yes.

Q. And the next item, Sales to Affiliated Companies for Resale, $546,807.88. Have you got a breakdown of that?

A. That's sales to Cheyenne Light, Fuel & Power Company and to Public Service Company of Colorado.

Q. You have attached to that exhibit, Gross Revenue from Sales. Is that gross revenue from sales statement, does it only go through December 31, 1939?

A. Yes.

Q. So it does not reflect any of the revenues for 1940?

A. No, not in that one.

Q. Now, I assume that that is an annual sales statement, revenue statement that you have in your exhibit. Is that as of December 31st of each year?

A. Yes.

Q. From 1929 through 1939?

A. That's right.

Q. And do you have the gross revenue from sales as broken down on that statement for the twelve months ending September 30 of 1940 in your work sheets?

A. What was that again?

Q. Do you have the gross revenue from sales for the twelve months period ending September 30, 1940?

A. You mean broken down in the same fashion?

Q. That's right.

A. I believe I have it, but I'm not sure that I have it with me.

Q. Could you supply that?

A. I think we have that.

Mr. McCreery: What is it you want now?

Mr. Lange: The gross revenue from sales broken down—strike that.

The gross revenue from sales for the twelve months period ending September 30, 1940, broken down as appears in the statement attached to the exhibit for the several years from 1929 through 1939.

Mr. McCreery: You mean a breakdown as to individual sales?

The Witness: The same detail.

Mr. Lange: Yes, the same detail.

Mr. McCreery: I see.

By Mr. Lange:

Q. Of course, your earnings statement that I was just referring to covers the twelve months ending September 30, 1940?

A. Yes.

Q. And in order to be able to reconcile those figures I would like to have that detail.

A. All right.

Q. For that same fiscal period.

A. Yes, to correspond to this.

Mr. Lange: That's right.

Mr. McCreery: We will produce that.

Mr. Lange: Very well.

Q. Now, you have stated that this item under Sales to Affiliated Companies for Resale, includes the sales to all of the companies named on this gross revenue from sales in your exhibit.

A. Yes. The Public Service Company and the Cheyenne Light, Fuel & Power Company.

Q. That's the two affiliates, first; then the other item, Sales to Others, includes the remaining sales?

A. Greeley Gas and Fuel Company and Highway—

Q. Highway Gas Company?

A. Yes.

Q. Now, on this Gross Revenue from Sales statement

under Sales to Distributing Companies for Resale, Cheyenne Light, Fuel and Power Company, you have an item of Rebate on Heating Gas. What does that represent? That is, for the years 1934 through 1939?

A. Rebate reflects the reduction in heating gas that comes about through our amended contract there which we submitted.

Q. And that was not in effect prior to 1934?

A. No.

Mr. McCreery: That is identified as the contract set forth in Exhibit 102, Mr. Lange.

Mr. Lange: Exhibit 102?

Mr. McCreery: Yes, amendatory contract of August 24, 1934.

By Mr. Lange:

Q. Now, under Other Operating Revenue on that earnings statement you have an item of $8,000 received from affiliated companies. What does that item represent?

A. That is an annual revenue service charge which we received from Public Service Company for standby service at Valmont Generating Plant.

Q. Valmont Generating Plant?

A. Yes.

Q. Where is that located?

A. Near Boulder.

Q. Is that an annual payment or how is that received?

A. It is paid monthly.

Q. Monthly?

A. Twelve equal amounts.

Q. Which totals $8,000 a year?

A. That's right.

Q. Is that paid under a contractual arrangement?

A. Yes, I think we have already filed the contract.

Q. Under which contract is that—

Mr. McCreery: That is under Exhibit No. 103, the ninth contract.

Mr. Lange: The ninth contract, Valmont Generating Plant?

Mr. McCreery: Standby Service.

The Trial Examiner: That electricity there is generated by coal, isn't it?

Mr. McCreery: Yes, and this is a standby in the event of failure of the coal supply.

By Mr. Lange:

Q. Now, under that item as a deduction from total gross revenue, you have a deduction for bad debts of $444.26. What was the occasion for the deduction of that item in this twelve months statement?

A. This gas bill is written off as a deduction from revenue.

Q. Was it one bill?

A. I believe it was.

Q. What company?

A. I think it was this U. S. Smelter which we discoursed on a while ago.

Q. Oh, that United States Smelter that has gone out of business?

A. Yes.

Q. Isn't this item at least two or more years old, or how old is it actually?

A. Well, it was—it dates back to the time we rendered some primary service to them. They never did go into full operation.

Q. When was it payable? How many years since it was due and payable?

A. Oh, I guess it was either '38—I believe it was then.

Q. 1938?

A. I believe it is.

Q. It was over two years old on September 30, 1940, wasn't it?

A. It probably was.

Q. As a proper accounting practice, you wouldn't put that whole item of $444.26 in the operating statement for that one year as a proper deduction, would you?

A. It was taken in December of the previous year, as I remember it, so when we pick up the last three months of 1940 we naturally would find that there.

Mr. McCreery: The last three months of 1939, you mean?

The Witness: Yes.

By Mr. Lange:

Q. Even at that time, how old was it then?

A. Well, it was incurred in 1938 and it was approximately two years old.

Mr. McCreery: Two years old in 1939 if you secured it in 1938?

The Witness: If it was 1938 it was approximately that.

By Mr. Lange:

Q. Speaking as an accountant in proper accounting practices you would think that was a proper deduction in this earnings statement?

A. Well, I said that this write-off occurred in December. In picking up the last three months of 1939 we picked up that item?

Q. Well,—repeat that question back, Mr. Reporter.

(The question referred to was read by the reporter, as set forth above.)

The Witness: As I said before, we picked up this item as of the period in December—

By Mr. Lange:

Q. As an accountant?

A. —and if we distribute it in some other way, it wouldn't reflect the true condition of the books as of December.

Q. The way it now appears, does it appear as a correct accounting item in the light of that history?

A. The normal accounting procedure is to accrue some sum of money for bad debts. We have very few of those and when we have one bad debt we write if off.

Q. You don't set up any reserve?

A. No.

Q. That would ordinarily be done?

A. That is right.

Q. Under Operation and Maintenance, Purchased Gas Expense, Others, at $5,086.84 applicable to companies other than Colorado Interstate Gas Company. What other companies are those?

A. That is the gas that we buy from the Berthoud field.

Q. Gas that you buy from the Berthoud field?

A. Yes.

Q. Whom did you buy it from?

A. The present contract in force includes the Kir-Well Oil Company.

Q. The Kir-Well Oil Company?

A. Yes. That is the successor to Myer Goodstein who operated in the field.

Mr. McCreery: To clear up the record, will you have him state that the Berthoud field is in Colorado?

Mr. Lange: Yes.

Q. The Berthoud field is in the state of Colorado?

A. Yes.

Q. What other companies are there?

A. I believe that was all.

Q. All right, what amount of gas in volume was purchased by that company during that twelve months?

A. For the twelve months period it would be around 50,000,000 feet.

Q. At what price per Mcf. was that purchased?

A. Ten cents.

Q. Do you have a contract purchase on that?

A. Yes.

Q. Has that been included in the exhibits heretofore submitted?

Mr. McCreery: That has not yet been produced in evidence, Mr. Lange.

Mr. Lange: Not yet?

Mr. McCreery: No.

Mr. Lange: That will be submitted later, Mr. McCreery?

Mr. McCreery: Yes, it will.

By Mr. Lange:

Q. Are there any others in that item?

A. I think that is all.

Q. Do you know—strike that.

In connection with this conditioning expense that you have set up under Operation and Maintenance you have it broken down into Transmission Operation and Transmission Maintenance. What are the main items of cost that have gone into those items?

A. Well, the major items are the operation of the compressor stations and operation of pipe lines which in turn takes in salaries, supplies, and—

Q. Does that include metering stations, too?

A. Yes.

Q. What character of operation does that cover, any items that were attributable entirely to this one year's operation?

A. I believe it applies strictly to the period in question.

Q. In connection with this designation of Transmission Operation and Transmission Maintenance, you included metering stations?

A. Yes.

Q. You didn't segregate it?

A. Not this total item. It is part—

Q. Do you have the figures whereby you can segregate those two?

A. Yes, we can get them. They don't appear in this exhibit.

Q. Can you furnish them for the record?

Mr. McCreery: You mean you want a breakdown of the earnings statement between the pipe line and the compressor station and measuring station in transmission operation?

Mr. Lange: Yes.

Q. Now, Mr. Davis, do you know the character and use that metering stations serve this property?

A. Yes.

Q. What is it?

A. It is all wholesale measurement.

Q. Well, they serve the several—

A. The town border—

Q. The town border distribution plant?
A. That is right.
Q. They are not a function of transmission, are they?
A. Well,—

Mr. McCreery: I object. It is calling for a legal conclusion by the witness of what relation that has to the enterprise. He can describe what the physical operation is, but I object to his drawing any such conclusions. I have—

Mr. Lange: If he knows—

Mr. McCreery: Please let me finish.

Mr. Lange: I am sorry.

Mr. McCreery: I have no objection to bringing out the facts, but I object to any conclusions.

The Trial Examiner: You may explore what items the witness has contained in this classification he sets up on the statement.

Mr. Lange: Mr. Examiner, I want to test his knowledge of accounting. He certainly must know what these various items represent before he can properly classify them. He must know something with reference to the function of the items of property to determine their proper classifications,—if he doesn't know he can state it—or the use that is made of any particular item of property that gets into a particular classification.

The Trial Examiner: I think you may explore it. The objection will be overruled.

Mr. McCreery: Note an exception.

Mr. Lange: I will reframe the question.

Q. As an accountant, why have you included these metering station operations with transmission operations?
A. It is all a function of transmission. You can't transmit anything unless you let loose of it. You can't transmit it and hold it there. It isn't transmitted then.
Q. Does the transmission of gas end at the metering station as far as your transmission is concerned?
A. Yes, sir.

Q. And the metering of the gas as to the distributing company?

A. Yes, measuring out what you transmitted.

Q. That is how you can tell the volume of gas that the distributing company acquires or purchases?

A. Yes.

Q. If there were no distributing companies there would be no meters?

A. That is right.

Q. And as an accounting matter, do you think that the inclusion of that metering station expense is properly in transmission operation?

A. Unquestionably.

Q. One item?

A. Yes.

Q. It should be set up as one item rather than between the two, as between distribution system operations and transmission system operations?

A. If you determine that you have distribution operations, then we can set it up separately.

Q. Even if you don't yourself distribute gas, as an accounting matter there could be certain items attributable to distribution of gas that would not be attributable to transmission operations?

A. Distribution of gas in the normal understanding, I believe, is the carrying and delivering to numerous customers. This doesn't partake of that in that same relative way. This is a wholesale proposition. You wouldn't call a wholesaler a distributor.

Q. No, but what character of wholesalers are included in those delivery points?

A. All classes of sales, industrial, gas for resale—

Q. In other words, both direct as well as those for resale?

A. That is right.

Q. And in spite of that fact, as an accounting matter, you are still of the opinion that it should be included under transmission operation?

Mr. McCreery: I object to this line of questioning. It seems to be trying to make some kind of a test of accounting ideas. This witness has stated what has been done on

these books. His qualifications as an expert accountant are not here involved. He is reflecting what the books show and I submit that the testimony is improper in the course it is now taking.

Mr. Lange: I will withdraw that question.

Q. I will ask you whether in connection with the preparation of this exhibit or in connection with the preparation of any similar accounting exhibit, you have followed the Federal Power Commission's Uniform System of Accounts for the Natural Gas Business.

A. I believe this exhibit is in conformity with it.

Q. It is? Do you know what the Uniform System of Account provides in connection with those particular items of operating and maintenance expense?

A. I don't just follow you there, Mr. Lange.

Q. Do you know what the Uniform System of Accounts for natural gas companies, as promulgated by the Federal Power Commission provides with reference to setting up of items of operating and maintenance expense attributable to distribution operations as distinguished from distribution?

A. I distinguish between them.

Q. You do?

A. Yes.

Q. Did you follow that Uniform System of Accounts in the preparation of this earnings statement?

A. It wasn't necessary. We didn't treat this as being distribution property.

Q. In that respect you didn't follow the provisions of the Uniform System of Accounts?

A. We have no distribution company so we have no need for following that part of it.

The Trial Examiner: We will stand in recess until 2:00 o'clock this afternoon.

(Whereupon, at 12:30 o'clock, p. m., a recess was taken until 2:00 o'clock, p. m., of the same day.)

Afternoon Session, 2:00 P. M.

The Trial Examiner: The hearing will be in order.

Whereupon H. P. DAVIS the witness on the stand at the time of recess, having been previously duly sworn, resumed the stand and testified further as follows:

Recross Examination (Continued)

By Mr. Lange:

Q. Mr. Davis, at the time the hearing recessed at noon, the matter of the proper classification of operating and maintenance expense under transmission operations was at issue.

A. That's right, I believe.

Q. And you stated that you followed the Commission's uniform system of accounts classification for natural gas companies?

A. That's right.

Q. You did?

A. Yes.

Q. And considered that this item of expense covering meter and regulator stations should be included in transmission operations?

A. That's right.

Q. You say you are familiar with the uniform system of accounts?

A. I have been through it a number of times, yes.

Q. I direct you to Page 51, Paragraph 16, headed: "Transmission and Distribution Plant:"

"For the purpose of this system of accounts:

"A. 'Transmission System' means the land, structures, mains, valves, meters, boosters, regulators, tanks, compressors and their driving units and appurtenances and other equipment used primarily for transmitting gas to a particular municipality or distribution system. The transmission system begins at the outlet side of the valve and the connection between the gathering lines or other source of supply and inlet to the transmission compressor stations or other gathering terminals and includes the equipment

at such connection that is used to bring the gas to transmission pressure, * * *"

A. That's right.

Q. (Continuing) "* * * and ends at the inlet side of the equipment which meters or regulates the entry of gas into the distribution system."

What have you got to say to that last clause, "and ends at the inlet side of the equipment which meters or regulates the entry of gas into the distribution system."?

Mr. McCreery: At this point I object. It is wholly immaterial; hasn't anything to do with the issues in this case. This system has been set up and there are other—I refer also to Page 53 and to Pages 65 and 66, but it is wholly immaterial in this proceedings how these expense items are set up, whether in strict accord at this time with the system of accounts or not. These accounts are to be set up within a certain period under the rules effective January 1, 1940. This account dates back to a time prior to January 1, 1940, so that the thing is wholly immaterial to any issue in this case whether it happens to be the particular construction of these rules that counsel believe in or some other construction. It doesn't make any difference whether it is under this system of accounts or not, at this time.

Mr. Lange: Mr. Examiner, first of all, the earnings statement that we are discussing at present is for the twelve months ending September 30, 1940.

Mr. McCreery: Which is a part of the year preceding the effective date.

Mr. Lange: He has stated that he has followed the uniform system of accounts and is familiar with it and has applied it. I am just testing his knowledge of that and seeing whether he did actually apply it.

The Trial Examiner: The objection will be overruled.

Mr. Lange: Now, will you read that question back to the witness, please?

(The record referred to was read by the reporter, as set forth above.)

The Witness: I don't believe there is much support for that ruling there that it should end at the inlet side. I don't believe there is a gas company in the country that doesn't meter their own gas. Consequently, it doesn't belong to the distributing company until it passes the meter.

By Mr. Lange:

Q. Then you disagree with the provision as it here applies?

A. I do; yes.

Q. And, of course, then, you didn't follow it, either?

A. Well I couldn't. In my judgment I couldn't.

Q. Now turning to your earnings statement for the twelve months—the continuation of your earnings statement for that twelve months ending September 30, 1940, still under "Operation and Maintenance, General Expenses," the first item of "Executive Salaries," what salaries do those include?

A. That includes only the manager.

Q. The manager's salary?

A. Yes.

Q. And who is the manager?

A. Mr. Shortess.

Q. And the item of "Legal Expenses," what does that include? Have you got—

A. I have already furnished Mr. Smith a detailed statement of that, I believe.

Q. What are the items that go into making up that $5,357.90 in that item as it stands here?

A. This is probably an accrual item. We pay out certain legal expenses, perhaps in advance or afterwards, but we accrue an estimated amount monthly, and this is probably the amount to compensate for that accrued during that period.

Q. The amount accrued?

A. Yes.

Q. What do your working papers show as to the items that have accrued to make that sum?

A. I don't know whether they show it just that way or not, but I will say that it is principally a retainer paid to our legal firm plus some small expenses they may have incurred.

Q. Well, if you have your working papers there, you can give it to us for the record.

A. I don't seem to have the detail on that, Mr. Lange.

Q. Do you have that detail that you can get and supply for the record?

A. I can secure it, yes.

Q. Very well. That includes a breakdown of that total item?

A. How we arrived at it, yes, sir.

Q. Yes. Now, your item of "Advisers Service Expense," $3,216.19. How do you arrive at that figure?

A. Well, I'll say all of it is monthly charges rendered by the Advisory company as our participation in the association.

Q. Petroleum Advisers, Inc.?

A. Yes.

Q. How is that prorated?

A. Their method is based on a percentage of the total revenue of all the associated companies.

Q. Total revenue of all associated companies?

A. Yes.

Q. Now, in other words, Colorado-Wyoming's proportionate revenue to that total?

A. That's right.

Q. Is used, and then you get your prorated amount?

A. Yes.

Q. All right, what other companies go into—strike out.

What other companies total revenues are computed with Colorado-Wyoming Gas Company to get your proration figure?

A. I can't tell you that offhand. That relates to the statement which you asked me to get before of the companies associated.

Q. Will you get that information?

A. That will be obtained, yes, sir.

Q. And let us have it for the record.

Mr. McCreery: Well, Mr. Lange, that contract will come in, too, and then perhaps you can make your inquiries along this line with the contract in evidence. It is not in evidence yet.

Mr. Lange: Yes.

The Trial Examiner: That is, your service contract will come in evidence, Mr. McCreery?

Mr. McCreery: It will be offered in evidence, yes, sir.

Mr. Lange: Will this on its face reflect the names of the other companies that also participated, upon which the accountant arrives at his proration figure?

Mr. McCreery: I can put that contract in now if you want it.

Mr. Lange: I think it more logical—or, rather it might save time.

The Trial Examiner: It will be marked for identification as Exhibit No. 106.

(Exhibit 106, Witness Davis, marked for identification.)

Mr. McCreery: May I interrupt the examination for just a second and ask a few questions?

Mr. Lange: Yes.

Redirect Examination.

By Mr. McCreery:

Q. Mr. Davis, I hand you Exhibit No. 106. Will you state what that embraces?

A. That is a copy of the Management Agreement formerly in effect, dated August 1, 1929, and has been superseded by a Service Contract dated January 1, 1938 with Petroleum Advisers, Inc.

Q. Are the contracts as set forth in the exhibit certified by you as secretary of the company in the form as they appear on the minutes of the company?

A. I certified these to be certified copies.

Mr. McCreery: Mr. Examiner, I now offer Exhibit No. 106 subject to any verification as to errors.

Mr. Lange: Yes, subject to verification. No objection.

The Trial Examiner: Exhibit No. 106 will be received.

(Exhibit 106, Witness Davis, received in evidence.)

Recross Examination.

By Mr. Lange:

Q. I don't find the names of these other companies in this contract, that is, those companies with whom you prorate that item so that you can arrive at the $3216 item that appears in your operations and maintenance expense.

A. No, they don't come in the contract.

Q. You will get a list of those companies?

A. It is separate information.

Q. Isn't there also in connection with that the so-called stock subscription agreement in effect between those several companies?

A. That is our membership, yes.

Q. Is that in the form of an agreement?

A. Yes.

Q. And that includes all of those companies that entered into this proration of the total amount?

A. I am not sure that they are mentioned on there.

Q. But they are the same ones, aren't they?

A. Yes.

Q. Do you have that available?

A. I can get it.

Q. You can get a copy of that for the record?

A. Yes.

Q. Now, this item of $3216.19, can you give me the exact mechanics that you utilized in arriving at that figure?

A. I don't compute the figure as it is billed to me from the service company.

Q. Oh, the Petroleum Advisers, Inc. bill that figure to you after they have computed it?

A. That is right.

Q. Do you have any figures available to check the accuracy of their computation?

A. No, I am not in a position to do so. They have all the figures there.

Q. They just submit it to you for entry on the Colorado-Wyoming Gas Company's books, the prorated part—

A. That is right.

Q. —applicable to Colorado-Wyoming Gas Company, and you make that entry when they submit the figure?

A. Right.

Q. Now, what other items of expense in that column are prorated items?

A. You mean in this same figure, this $3216?

Q. Well, there isn't any other proration in that figure, is there?

A. No.

Q. In that column?

A. There is no other proration. Everything else is a direct charge from some source.

Q. Not any one of those items in that column is a prorated item of another item?

A. No.

Q. Or are those appearing on the preceding pages, the preceding portions of operation and maintenance?

A. No.

Q. Now, this item of Taxes under Operation and Maintenance, General Expenses, $33,439.37, what does that include or what does it consist of?

A. It is principally state and county property taxes.

Q. State and county property taxes?

A. Yes.

Q. What else? You said "principal."

A. I may have it broken down here. I don't seem to have it here, but I could give you the principal items from my memory.

Q. All right.

A. The state and county property taxes are the most important and it is the bulk of that sum. We have state income tax—

Q. Colorado state income tax?

A. Colorado state income tax.

Q. There is no state income tax in the state of Wyoming?

A. No state income tax.

Q. All right, continue.

A. There is capital stock tax, state corporation taxes, license fees, state sales tax, and social security taxes.

Q. What portion of that total of $33,439.37 consists of Colorado state income tax?

A. A little less than ten per cent, I would say.

Q. You don't have the exact item?

A. It is roughly less than $3,000.

Q. But you can get the exact amount of that item?

A. Yes.

Q. For this period for the record?

A. Yes.

Q. Now, then, I notice following Net Earnings from Operation the computation you have for the item of Federal Income Tax, $25,388.13. Why is it you didn't also have the Colorado state income tax appear at that portion of your earnings statement?

A. Federal income taxes are imposed after all other deductions from income.

Q. After all other deductions from income?

A. Yes.

Q. What about Colorado state income taxes?

A. Well, that likewise applies, but we don't treat it that way on this earnings sheet.

Q. Well, isn't that unusual? Wouldn't it be just as applicable to those state income taxes as to the Federal income tax?

A. It is a minor item and we don't set it up separately.

Q. But as a matter of accounting that is where it would properly be, with the Federal income tax?

A. Not necessarily an accounting item. The Federal income tax could be included up here with the other taxes.

Q. That is true, but since you treated the Federal income tax like this, also for uniformity, you would want to treat the state income tax likewise?

A. Not necessarily.

Mr. McCreery: It is applicable only to part of the company's income.

Mr. Lange: It is whatever the statute reads it would apply to. However, I understood him to say that both taxes were similarly applicable. I just wanted to know why his method is different in his operating statement.

The Witness: There is no particular reason except that we consider that a minor item and just a part of our general taxes rather than a special item.

By Mr. Lange:

Q. But the accounting practice would very readily justify and support the placing of the Colorado income tax with the Federal income tax on this operating statement?

A. If you chose to do it that way.

Q. Then it would be good accounting?

A. Either way would be good accounting.

Q. Will you get that exact item out of the $33,439.37 so we can have it for the record?

A. Yes.

Mr. McCreery: Do you want the breakdown of the rest of the taxes or just the one item?

Mr. Lange: Just the one item, the Colorado state income tax out of that $33,439.37 item.

Q. On this same earnings statement you have the item of $10,816.89 covering the regulatory commission expense, don't you?

A. Yes.

Q. Do you have a breakdown on that item?

A. I believe I do. My breakdown doesn't happen to be on that same twelve months period. It commences about January 1939 and comes down to September 30, so it has some other items in there.

Q. You do have a breakdown covering the total as reflected in this earnings statement, don't you?

A. Yes. In doing a little arithmetic I could arrive at it.

Q. Can you do that now? If you can it will expedite the matter rather than waiting until we get it later. Do you want to compute that later, Mr. Davis? If you do, you can.

A. With the figures I have available I don't seem to be able to strike that exact amount because these are set up in the order that they came in while the exhibit is based on months.

Q. You can later give us the breakdown that covers the items—rather, that embraces all of the items making up this $10,816.89?

A. Yes, sir.

Q. And also at the same time give us the items that go into the Regulatory Commission Expense charge for the

previous operating period. This is the operating period for the twelve months ending September 30, 1940, isn't it?

A. Yes.

Q. It begins with September 30, 1939. Do you have it for the previous twelve months or for whatever previous calendar period you have?

A. Well, it starts back in 1939, about in March.

Q. About March?

A. Yes.

Q. Can you give us the total from that time on?

A. All right. The total as I have it here is services and expenses on valuation work, $9,577.05.

Q. Who was that payable to?

A. That was paid to various people.

Q. Do you have a list of the payees to whom that was paid?

A. Not in detail except as to who the money went to. A large number of the charges are to Petroleum Advisers, Inc. for services of employees whom we obtained from them to work on this valuation.

Q. During that time they devoted their entire time to that work?

A. Yes.

Q. Well, do you have the complete information from March down through September 30, 1940? Do you have all items that have gone into the regulatory expense—the Regulatory Commission Expense?

A. Yes.

Q. And is the total broken down?

A. The total up to that point is $18,702.21 and I have divided it this way: Services and expenses on valuation, $9,577.05—

Q. Did that go to Petroleum Advisers, Inc.?

A. Well, it went to various people of which the largest amount went to Petroleum Advisers, Inc. It was not all in one sum, but at various times. Some went directly to employes which we hired ourselves and put on that work.

Q. For that particular work only?

A. For that particular work only. They were engaged solely in that work. Then we have $7500 for legal expense.

Q. Who was that payable to?

A. It was a retainer to our attorney for preparing this case.

Q. Who is your attorney?

A. Lee, Shaw & McCreery.

Q. Lee, Shaw & McCreery?

A. Yes.

Q. What other item goes into that total?

A. Miscellaneous expense is listed here as $1625. I think that is probably for printing, stationery and telegrams and so on. There are no large items.

The cost of cleaning 18 inspection holes *at* here on the pipe line—81 inspection holes, I meant to say.

Q. Is that also included in that?

A. $1,080.

Q. Who was that work done by?

A. It was done by a contractor that we obtained.

Q. What is the name of the contractor?

A. The Pioneer Construction Company.

Q. The Pioneer Construction Company?

A. Yes.

Q. Where are they located?

A. In the Denham Building.

Q. In Denver?

A. Yes.

Q. Was that under written contract?

A. Yes.

Q. Do you have a copy of that?

A. No, I don't have a copy of that.

Q. Do you have it in your file?

A. I believe we still have it.

The Trial Examiner: Was that just for the purpose of digging the hole and restoring it to its former condition.

The Witness: That was for digging the holes and restoring them to their former condition.

By Mr. Lange:

Q. Was that particular part of the work let out on bids?

A. Yes.

Q. It was?

A. Yes.

Q. And when was that work done? Approximately what month or months was the work done?

A. Approximately in the fall of 1939.

Q. Approximately in the fall of 1939?

A. Yes.

Q. About when?

A. It was about September.

Q. 1939?

A. Yes.

Q. That includes all Regulatory Commission Expense down through September 30, 1940?

A. This $10,816.89 does.

Q. And is their any--strike that.

You have got this regulatory commission expense under your operation and maintenance expense in your earnings statement for that twelve months ending September 30, 1940.

A. Yes, sir.

Q. That isn't the same character of expense incurred as the other expenses in that column, is it?

A. No, we hope it is a non-recurring expense.

Q. It is an ordinary accounting practice, so-termed, regardless of what your hopes are?

A. Well, this is my first experience under the commission. I don't know how they ordinarily treat it.

Q. Well, how would you ordinarily treat it in accounting practice?

A. I would take it in my stride and get rid of it.

Q. All in one twelve months period?

A. Take it as it came in, yes.

Q. That item of regulatory commission expense, was all of it incurred in connection with the present proceedings?

A. Yes, that and our expectation of having to comply with other requirements of the Commission.

Q. Well, was there any part of this attributable to anything—strike that.

What part of this regulatory commission expense, then, was *attirbutable* to other matters other than this rate case?

A. That would be kind of hard to say offhand. I would say that it was largely due to the rate case. However, in

connection with the work of preparing the case we expected to arrive at some other figures which we would use in complying with the Commission's reclassification order.

Q. Well, what expense, if any, have you incurred in connection with that?

A. Well, that would be hard to prorate that, I would say, because the work was being carried on as one unit; that is, we expected to obtain at one and the same time both answers.

Q. I see. Well, over what period of time was that work carried on?

A. Almost the entire period. We started that work back in June 1939.

Q. And has it been completed?

A. No.

Q. Well, how far has it gone along? How much more is there to be done?

A. Oh, approximately sixty per cent complete.

Q. Sixty per cent completed?

A. Yes.

Q. Well, what proportion—

Mr. McCreery: Completed or to complete?

The Witness: Sir?

Mr. McCreery: Completed or to complete?

The Witness: Now completed.

Mr. McCreery: Sixty per cent?

The Witness: Yes.

Mr. McCreery: I wanted to identify which way it went.

By Mr. Lange:

Q. And you have attempted to ascertain approximately what proportion of the total that you have set up for regulatory commission expense is attributable to the completion of that 60 per cent of work in connection with the Commission's other requirements?

A. I don't know if I just get that, but I will give you a rough figure if that's what you want.

Q. As near as you can approximate it.

A. I don't believe I can give it to you as a separate item, but making an estimate of what the trial of this case plus this additional expense, if any, will cost us in the neighborhood of an additional $25,000.

Q. $25,000.

A. Yes, possibly a little more than that. I can't tell at this stage.

Q. What employes did you have to put on to do that work?

A. Well, at the present time we have three employes engaged solely in that work.

Q. What character of work do they perform?

A. They made a complete inventory of the plant and they are now in process of reconciling that into units and pricing units.

Q. Although you say that already sixty per cent of it has been completed and is included in that $18,000 item of regulatory commission expense, that forty per cent to be completed would be more than this total?

A. No, no. I told you I was lumping the cost of this trial—

Q. All of it together?

A. Yes. I am just making a guess.

Q. In other words, the total that is now $18,000 would eventually be around $25,000?

A. No, eventually between $40,000 and $50,000.

Q. Between $40,000 and $50,000?

A. Yes.

Q. Well, then, as I say, you have already completed sixty per cent of that work together with all of this work in connection with the present rate case. All of that cost you say is around $18,000?

A. At September 30th.

Q. That's right; then you say that the remaining forty per cent of this other work that would be attributable to the Commission's—to putting into effect the Commission's reclassification requirements would cost you $25,000 more?

A. No. That portion of the work possibly wouldn't exceed six or seven thousand dollars, we'll say.

Q. Six or seven thousand dollars?

A. I told you I was lumping the cost of this case in the 25 or 30 thousand.

Q. In other words, to complete the matters aside from this rate case would cost you around six or seven thousand dollars?

A. Some such amount.

Q. Then you have computed an approximate additional amount for the completion of this rate case which has not yet been incurred?

A. It is in the process of incurrence, yes.

Q. And you haven't anything definite but have only approximated that?

A. I can only make a more or less guess at it, based on what the services are going to be.

Q. I see. These employes that you just named that were put on this matter of the Commission's—let's see, you named taking the inventory of the properties?

A. Yes.

Q. Where were they from?

A. They are from the Valuation Department.

Q. Of Petroleum Advisers?

A. No, Electric Advisers.

Q. Electric Advisers, Inc.?

A. Yes.

Q. And now that is the third group of the Advisers, isn't it?

A. Yes.

Q. Yes, Petroleum Advisers, Inc., Gas Advisers, Inc., and Electric Advisers, Inc.

A. Yes.

Q. In other words, they were broken up into those three groups after the Holding Company Act went into effect?

A. They each have their own sphere of action, but their services are available to each of—

Q. In other words, that original group before the companies were divided into three groups was Henry L. Doherty & Co.?

A. I think so.

Q. And these three men that were making the inventory of your properties were from Electric Advisers, Inc.?

A. Two of the men. One is an employe which we engaged on our own hook.

Q. Well, why would they have men from Electric Ad-

visers, Inc., rather than from Gas Advisers, Inc., on this kind of work?

A. I don't believe Gas Advisers, Inc. maintains a Valuation Department.

Q. They don't?

A. I don't think so.

Q. Your operations are exclusively natural gas, aren't they?

A. Yes.

Q. You have no electric properties in Colorado-Wyoming Gas Company's system?

A. No, we don't.

Q. It is your understanding they have no valuation engineers in the Gas Advisers, Inc.?

A. That's my understanding.

Q. That is why you had these men from—

A. They have no department functioning as a valuation department. That's the way I understand it.

Q. And did these three men do any work in connection with this present rate case?

A. Yes, since the first of November. They have assisted in preparing certain exhibits, and so forth.

Q. And on what basis were they employed? What basis of pay to do that work?

A. They are paid by the Advisers company who in turn bill us for their services.

Q. On a certain basis?

A. Oh, I suppose, the actual pay that they receive, at cost.

Q. Don't they have a specific contract with you on that?

A. They furnish us with any employes we may need at cost.

Mr. McCreery: Those terms are all set forth in the contract as to how the costs are determined. It is all in the contract. The whole thing is set out in it.

By Mr. Lange:

Q. What other employes of Electric Advisers, Inc., or of Petroleum Advisers, Inc. have been on this particular work, other than the rate case work?

A. On the valuation work, you mean?

Q. No, any other requirements that you say you are trying to comply with, or that you are now complying with.

A. Oh, we are making an effort to comply with this so-called 2-D paragraph, and one of the answers we expect to get out of this valuation is our reclassified plant figure. The thing is sort of dovetailed together. There is no separation on it.

Q. And are they working on any other phase of those problems?

A. No.

Q. And are any of your regular employes working on that work doing anything in connection with that work?

A. Not regularly. We participate in it to a large degree, of course.

The Trial Examiner: Are you speaking now of the reclassification, now, Mr. Lange?

Mr. Lange: Yes.

Q. You say some of your regular employes are also engaged in part of that work?

A. Well, as needed, yes; that is, it is necessary that they call on us for various things, you know, from time to time. We take up perhaps a good many hours during the course of affairs assisting them.

Q. And are any of your regular employes participating in any of the work in connection with this particular rate proceeding?

A. The same principle applies there. However, if you mean are we charging any of their time against it, I'll say no.

Q. You are not?

A. We are not.

Q. Are there any other than the three groups you mentioned, the Electric Advisers, Inc., the Gas Advisers, Inc. and Petroleum Advisers, Inc., that are rendering those several services to the companies? Are those the three service companies?

A. Yes. However, we only have relations with Petroleum Advisers. These other companies are called in by them.

Q. And the Petroleum Advisers is the one with whom you have your contract?

A. That's right, yes.

Q. And if they don't have anyone in their organization that can furnish the particular service, they will call on any one of the other two companies to supply the necessary service?

A. That's right.

Q. And do all three companies have their offices in New York?

A. Yes.

Q. Well, where do they have their headquarters?

A. In 60 Wall Street Tower.

Q. Wall Street?

A. Yes.

Q. And that's the Cities Service group there?

A. Yes.

Q. Now, I notice that your balance sheet as well as your earnings statement in this Exhibit No. 105 covers the twelve months operating period ending September 30, 1940, but your statement of gas sales as well as your gross revenue from sales statement, each of those statements ends with the calendar year 1939. You haven't any figures in each of those statements comparable for the accounting period of September 30, 1940, have you?

A. No. Those exhibits were based all on complete calendar years while this earnings statement is for the twelve months ended—

Q. And this gas sales statement attached to the exhibit, shows that it is on a contract pressure base, so there are varying pressure bases that enter into that?

A. That's right.

Q. Mcf. in gas sales. In other words, each of the contracts there set forth may have a different pressure base, or putting it the other way, there is no uniform pressure base reflected?

A. No.

Q. Now, one more question with reference to this:

You designated Mr. Wedum as Assistant Secretary for the Board, this morning?

A. Yes.

Q. What other positions, if any, does he hold with the companies?

A. That is the only position he now holds.

Q. As Assistant Secretary for the Colorado-Wyoming?

A. Yes.

Q. Does he hold any other positions with any of the other companies?

A. I couldn't tell you a thing about that.

Q. Can you ascertain that for us?

A. I doubt if I can. It is not at my command.

Q. You can make the inquiry about it, can you?

A. I can ask for it, yes.

Q. Very well. He is the assistant under you, isn't he, in this company?

A. Yes.

Q. Will you ascertain what positions he holds with any of the other companies?

A. I'll be glad to inquire.

(Vol. 24, 3302-3377.)

* * * * * *

Q. Inquiry was made of you, Mr. Davis, also as to the character of your inclusions in your transmission operation of certain items, particularly measuring stations and meters. I will ask you if in considering the uniform system of accounts of the Federal Power Commission you considered certain portions of that governing book as put out effective January 1, 1940 dealing with that matter?

A. I have, yes.

Q. Can you refer to the book and indicate to the Examiner the portions that you have considered in the results you arrived at in setting forth these transmission operation and maintenance charges?

A. Well, the classification—or the portion of it which we complied with which we believe is the proper one is set forth on Page 65, Item IV, "Transmission Plant." With your permission I'll read the item:

"Account 351. Land and Land Rights.

"A. This account shall include the cost of land and land rights used in connection with transmission operations. (See Gas plant instruction 9.)

"B. This account shall be subdivided as follows:
351.1 Land.
351.2 Land Rights.

"Account 352. Structures and Improvements.

"A. This account shall include the cost in place of structures and improvements used in connection with transmission operations. (See Gas Plant Instruction 10.)

"B. This account shall be subdivided as follows:
352.1 Pumping Station Structures.
352.2 Measuring and Regulating Station Structures.

"Account 353. Mains.

"A. This account shall include the cost installed of transmission system mains.

"B. The record supporting this account shall be so kept as to show separately the cost of mains of different sizes and types of each tunnel, bridge, or river crossing."

The items under this division are:

"1. Drip lines and pots.

"2. Excavation, including shoring, bracing, bridging, pumping, back-fill, and disposal of excess excavated material.

"3. Municipal inspection.

"4. Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.

"5. Permits.

"6. Pipe coatings.

"7. Pipe and fittings.

"8. Pipe laying.

"9. Pipe supports.

"10. Protection of street openings.

"11. Valves where not installed in pits.

"Account 354. Pumping and Regulating Equipment.

"A. This account shall include the cost installed of pumping, regulating, and measuring equipment, including all transmission property other than land, structures, and mains."

Q. You are now reading from Page 66?

A. Page 66.

(Continuing) "B. This account shall be subdivided as follows:

354.1 Pumping Station Equipment.
354.2 Measuring and Regulating Station Equipment."

The items under this are:

"1. After-cooling equipment and accessories.

"2. Boosters.

"3. Compressors.

"4. Driving units for items listed herein.

"5. Excavation, including shoring, bracing; bridging, pumping, back-fill, and disposal of excess excavated material.

"6. Foundations and vaults for items listed herein.

"7. Meters located on lines.

"8. Odorization equipment.

"9. Pavement disturbed, including cutting and replacing pavement, pavement base, and sidewalks.

"10. Piping and fittings for equipment.

"11. Pressure indicators.

"12. Valves and valve pits.

"13. Governors or regulators.

"14. Office furniture and equipment."

Q. Mr. Davis, in considering the portion of this booklet which you have just read and in view of the language, did you consider it proper to include metering and measuring equipment under the designation which you used?

A. I felt that the language was quite plain there.

Q. And is it not also a fact that the same types of equipment might equally be in a distribution system?

A. It could be.

Q. In fact, does the Colorado-Wyoming Gas Company have any distribution system whatever?

A. We do not.

Q. It is purely a transmission system?

A. Right.

(Vol. 24, pp. 3378-3382).

* * * * *

By Mr. McCreery:

Q. Mr. Davis, you have previously testified and have been sworn?

A. Yes, sir.

Q. On your previous examination you were asked to produce certain additional material and I hand you a document marked Exhibit 113. I will ask you, Mr. Davis, if you will state what is included in the exhibit marked 113?

A. I offer here a copy of the gas purchase contract with the Goodstein Pipe Line Company for Berthoud, Colorado field, and assignment of same by Myer Goodstein to Kir-Well Oil Company; also included herein is a contract for digging pipe line inspection holes by the Pioneer Construction and Engineering Company, and a copy of a subscription agreement with Petroleum Advisers, Inc.; also a detail of expenses charged to Colorado-Wyoming Gas Company by Petroleum Advisers, Inc. for the year 1938 and 1939, and a list of the member companies in Petroleum Advisers, Inc. as of April 1, 1938.

(Exhibit 113, Witness Davis, marked for identification.)

Mr. McCreery: These various documents included within the exhibit being those asked for by counsel for the Commission, I offer this exhibit in evidence, subject, however, of course, to the right to compare the document with the original copies which are in our hands.

Mr. Lange: No objection.

The Trial Examiner: Exhibit 113 will be received.

(Exhibit 113, Witness Davis, received in evidence.)

By Mr. McCreery:

Q. Mr. Davis, I hand you a document marked Exhibit 114. Will you state what that exhibit contains?

A. This is the supplemental detail to Exhibit 105 in re earnings statement for twelve months ending September 30, 1940.

(Exhibit 114, Witness Davis, marked for identification.)

By Mr. McCreery:

Q. The detail there included, is that detail requested by counsel for the Power Commission?

A. Yes, sir.

Q. In connection, Mr. Davis, with Exhibit 113, I believe you made a statement as to the assistant secretaryship of the Colorado-Wyoming Gas Company. Do you wish to make a correction in that previous testimony as indicated in the document described as detail of expenses charged to Colorado-Wyoming Gas Company by Petroleum Advisers, Inc., 1938 to 1939?

A. Yes, I wish to correct my statement on that.

Q. And what portion of the language in the exhibit do you wish to make such a correction?

A. The last paragraph. I'll read the last paragraph on Sheet C:

"None of the above individuals held positions in Colorado-Wyoming Gas Company in 1938 or 1939. Recently Mr. C. E. Weger became assistant treasurer and Mr. D. F. Leary became assistant secretary both, however, without compensation by Colorado-Wyoming Gas Company"

Q. As read, that constitutes a correction of your previous testimony?

A. Yes.

Q. Did you also state previously that the stockholders meetings had been held in New York?

A. I believe I may have said that. If so, it was wrong, because they are invariably held in Dover, Delaware.

Q. That is the state of incorporation of the company?

A. Yes.

Q. So in that respect, if you did state New York, you wish to have the record corrected?

A. I do, yes.

(Vol. 26, pp. 3653-3655.)

* * * * *

Company Exhibit No. 115 (Appendix this Record).

Company Exhibit No. 116 (Appendix this Record).

(b) *Operations, 1939-1949* (Ex. 115).

H. D. Hancock, for the Company, presented Exhibit 115 (See Appendix) which he described as follows:

"The operations of the company projected in Exhibit 115 to the year 1949, beginning with actual data in 1939 and the first ten months of 1940, shows classified sales in M.c.f., gross earnings to be realized therefrom, operation and maintenance expenses, and taxes, including Federal income tax, and the amount available for reserves and return.

"The figures as projected have been arrived at after careful consideration of all relevant elements.

"The volume of sales for each year for each customer has been based on an analysis and appraisal of present and expected markets and trends, including consultation with the customers of the company as to their anticipated requirements.

"Emergency conditions and economic depressions or booms, being entirely speculative, have not been considered, and the entire projection has been based on the present contract purchase prices of gas by the company, and the various sales prices thereof which are now charged to its customers.

"Expenses, including operating cost, maintenance cost, and general taxes, have been predicated upon the company's actual experience in the past and upon considera-

tion of the effect of anticipated changes in the future. Federal income taxes have been computed at the present applicable rates and do not reflect any amount for probable, and almost certain early, additions to the total of such Federal income taxes, resulting from increase in the tax rate or the application of additional forms of taxes.

"The resulting earnings available for reserves and return in this exhibit reflect the extent of the earnings which it is believed the company can reasonably expect to receive from year to year during the period covered by the study.

"No annual amortization or retirement reserve expense can be determined, due particularly to the entire absence of factual data with respect to the expected life of the gas reserves from which the company derives its supply of natural gas by purchase from the Colorado Interstate Gas Company (except as to an inconsequential amount purchased elsewhere)."

(Vol. 26, pp. 3660-3662.)

Upon cross-examination, the witness stated that he had commenced the actual compilation of the projections contained in the exhibit about three weeks prior to the time the testimony was given. He stated that, for the purpose of making the projections, he studied indicated trends of customers, probable sales and business conditions in the cities where gas is sold at the "city gate" for "resale." These cities included Cheyenne, Greeley, Boulder, Longmont, Loveland, Golden and various smaller towns. All of the communities are served by affiliated companies except Greeley and the customers served by Highway Gas Company. He stated that the inquiries made were for the purpose of obtaining the population growths trends, the extent to which customers use house-heating, the quantity that house-heating customers could be expected to use, and similar inquiries as to the commercial space heating in each of the cities. The inquiries also included industrial sales (Vol. 26, pp. 3662, 3663).

The witness stated that a classification was made in con-

nection with the estimated future volume of sales for domestic resale, as compared with industrial resale, in Cheyenne and Greeley. The cities served by the Public Service Company of Colorado were consolidated as a whole between domestic and industrial classifications (Vol. 26, p. 3664).

Upon further questioning, the witness stated that there was very little reason to estimate substantial changes in the sale of gas to direct industrial customers. There were, however, slight changes due to estimated loss of business in certain items. The estimate of use by industrial customers becomes static after 1946, largely for the reason that the sale to the Continental Oil Company for use in the Wellington Oil Field, north of Fort Collins, will be discontinued in 1946 upon the expected exhaustion of that field in that year. The gas used in this field is for general oil field operations, including gas for pumping. This information was obtained from the Company by Mr. Thackrey, Superintendent of the Colorado-Wyoming Company. There are nine existing industrial users, and each of them was interviewed. From the interviews at Golden Fire Brick Company, Colorado Portland Cement Company and the Coors Brewing Company, it was learned that they were the only industrial users that indicated an increase in their use of gas (Vol. 26, pp. 3665-3669).

The industrial sales estimate in the exhibit is based upon discussions with the customers as to what they believed their future trends would be. If there was nothing to indicate a change, the most reasonable course in preparing such an estimate as this exhibit is past and current experience, and this basis was used in such cases. The witness stated that all of such customers' consumption fluctuates from year to year. In some years it will be higher and in some lower. The estimate in Exhibit 115 is the average (Vol. 26, p. 3670). The estimate as to volume by each industrial user for each year, as shown in Exhibit 115, was on information, and there was no evidence which would indicate any substantial change, either by way of increase or decrease, and the most reasonable approach would be to estimate, as was done in the exhibit. There would be much more of a haz-

ard, in view of the showing, to make a projection either of an increase or a decrease (Vol. 26, pp. 3671, 3672.)

The witness stated that the period of projection ends in 1949, for the reason that this was the year in which the gas supply contract of Colorado-Wyoming Company, terminates (Vol. 26, p. 3674). In making the estimates in Exhibit 115, the contract pressure base was used (Vol. 26, p. 3675).

Continuing the cross-examination, the witness testified that Colorado-Wyoming Company sells gas to public authorities as follows: Fort Warren, Fort Logan, the Prison Farm and the Denver Water Board. At the two forts mentioned, gas is usually used for domestic purposes. The Denver Water Board uses gas in connection with the operation of the water facilities at Marston Lake plant. The same character of inquiry was made of the officers representing the public authorities mentioned, as in the case of industrials, to determine their use in the future. There were no facts which would indicate that the present defense program would materially affect the forecast as to these customers or the industrials. It might in some instances, for factors may arise beyond either the knowledge or control of the customer (Vol. 26, pp. 3676-3678). There was no information available from the Army officials as to whether or not any increase in the personnel at the Army posts would add to the consumption of gas at those places (Vol 26, pp. 3681, 3682).

The witness was questioned as to the predictions on sale for resale and the reason for the variations shown in exhibit, to which his answer was:

> "The principal factor which increases the sales for resale is the selling of additional house-heating gas; that is, the conversion of customers from the strictly domestic classification to the house-heating classification and that results in a very large increase per customer so converted. The industrial portion of the sale for resale to which you have referred is practically uniform."
>
> (Vol. 26, p. 3684.)

In connection with the sales for resale industrials, no

direct inquiry was made, such inquiry being made through the distributing company, and the information was received from the distributing companies, which had made surveys of their market prospects (Vol. 26, pp. 3686, 3687). The witness stated that the Cheyenne Company estimated no upward trend for industrial purposes. That company makes a continuous industrial survey, an industrial solicitation from day to day and year to year. It had nine industrial customers in 1936 and eleven thereafter. No consideration was given to any new industrial customers there, because none were in prospect (Vol. 26, p. 3688).

Continuing the cross-examination, counsel for the Commission reviewed with the witness the sales to Colorado Portland Cement Company, Golden Fire Brick Company and the Denver Water Board, which were:

	Colorado Portland Cement Co.	Golden Fire Brick Co.	Denver Water Board
	(In M.c.f.	Contract Pressure	Base)
1928	1,298,567		
1929	696,891		
1930	658,590	34,584	
1931	503,548	90,805	
1932	499,544	27,697	
1933	577	16,891	
1934	558,607	26,761	
1935	659,475	49,741	
1936	916,017	73,269	3,109
1937	961,897	77,880	10,298
1938	706,144	72,165	9,991
1939	1,015,502	66,921	9,010
1940*	900,000	45,000	9,258

*10 months actual, 2 months estimate.

Commission counsel inquired from the witness whether the projection of direct industrial use, based on the years 1934 to 1939, should show an increase in the years 1940 to 1945, as compared to the condition reflected in the projection (Ex. 115).

(Vol. 26, pp. 3690-3704.)

It appeared that the ratio of the 1932 sales to the Cement Company to the 1929 sales is 71½%, and, skipping the year 1934, the ratio of the 1934 sales to the 1939 sales is 55%.

In reply, the position of Mr. Hancock was:

"But if you eliminate for the purpose of arriving at those figures a high figure at the beginning of the period and ignore a low figure in the middle of the period, of course you can arrive at any conclusion you want to."

(Vol. 26, p. 3700.)

The witness testified the Cement Company's entire history of use was "up and down", and generally with respect to his predictions testified:

"A. They are made on the basis of an estimated uniform usage because it is impracticable to estimate when the ups will come and when the downs will come. I feel reasonably sure there will be ups and downs, but I don't claim to be enough of a prophet to say when they will occur. In the same manner in estimating the use of gas for house heating purposes, I don't claim to be a weather prophet and I don't attempt to say which winters will be cold and which winters will be warm; so I base the expected use of gas for heating purposes on, we'll say, a 55 or 60-year average, fully realizing that in the period of this estimate that we won't have average weather each year. It might accidentally average one year, but I have a feeling it will vary from the average each year, and we have followed much the same plan in projecting the earnings on the industrial customers.

"Q. And in the same—or did you proceed in that fashion with reference to your estimate on sales to public authorities?

"A. No, that was approached in a different way because the heating element is not present in that sale.

"Q. To the public authorities?

"A. To the public authorities. It is gas being used for cooking purposes, primarily.

* * * * * *

"Q. What about this Water Board's requirements?

* * * * *

"A. By a study of the performance over the past few years, wherein the usage has remained practically constant during all of the full years usage. * * * "

(Vol. 26, pp. 3701, 3702.)

Various officials of the several industrial customers were interviewed as to their estimated future requirements by members of the Colorado-Wyoming Company staff—Shortess, General Manager, Davis, Secretary, and Thackrey, Engineer.

Substantially all of the customers stated that there was no reason to believe that there would be any particular change in their demands for gas in the future.

(Vol. 27, pp. 3707-3715.)

With respect to inquiry of Public Service Company as to expected future requirements of that company to serve Fort Collins, Boulder, Longmont, Loveland and other cities and communities, the witness testified:

"A. There was a general discussion of the various factors which enter into a change in the present amount of gas sold by those companies, those factors including the rate of growth of domestic customers in each of the communities served. By 'domestic customers' I mean customers, generally speaking, who use gas for cooking and water heating purposes, the extent to which the company felt—by 'company' I mean the Public Service Company of Colorado—it could add to the sale of gas for house heating purposes, and how many present domestic customers could be converted to house heating—to the house heating classification, and what the annual consumption of each of these additional customers would be; and the same general character of inquiry and discussion as to commercial heating sales and other forms of commercial sales and the small industrial sales which were made in these distributing centers.

"Q. After that discussion was had and those factors taken into consideration, what was the answer of the Public Service Company to the inquiry?

"A. The members of the staff of Public Service Company of Colorado to which I have referred, gave to the Colorado-Wyoming Gas Company men their opinions on all of the factors which I have recited.

"Q. And did they estimate the future requirements of that company for any year?

"A. Those future requirements were discussed.

"Q. What estimate did the company make?

"A. The Public Service Company?

"Q. That's right.

"A. In general, the estimate presented was in close agreement with the estimate which is reflected in my Exhibit No. 115. In some instances, particularly in regard to the house heating estimates, the figures discussed were slightly reduced on the basis that they were felt by the Colorado-Wyoming Gas Company men to be slightly optimistic. We have found by experience that estimates prepared by the distributing companies, principally by men engaged in the new business or selling branch of the business, are somewhat optimistic. Perhaps that is a characteristic of the salesman to estimate that he can sell a certain volume of a product. He places his sights somewhat higher than perhaps the management of that company would do, and based on past experience in similar matters and in conformance with my own experience in a great many parts of the country and similar discussions, we have felt and I have felt that the estimate of future sales for the purposes just described represent a fair and reasonable estimate of the expectancy.

"Q. Not any of the inquiries were directed to any of the purchasers in writing, were they?

"A. No, sir."

(Vol. 27, pp. 3716-3718.)

The witness was then questioned as to whether or not a reduction in gas rates might increase the volume of sales. The following testimony was given:

"Q. And in connection with that new business in Denver, isn't it a fact that a reduction in rates will increase volumes of sales?

"A. In many instances it will. In certain instances it may not.

. . . . . .

"Q. That's right. Now, relating it to this particular company, wouldn't a reduction in rates increase the volumes of sales?

"A. Generally speaking, I believe it would but not in all branches of the business."

(Vol. 27, p. 3720.)

The witness was then questioned in regard to the new business activity of distributing companies, to which he replied that the new business activity of the Public Service Company was substantial in character and an important branch of the business of the company, and that such activity is devoted to obtaining new customers and to increasing the load of the existing customers. Generally speaking, the ultimate objective of such new business activity is to maintain and increase the load (Vol. 27, pp. 3822-3824).

The witness was questioned by the Examiner as to the percentage of new houses generally and in Cheyenne, which were being equipped for gas heating, and whether or not this was given consideration in the trend for future sales, to which the witness answered that a very large percentage of the new houses were equipped for gas house-heating, and that such fact was considered in making future estimates (Vol. 27, p. 3725).

In connection with "Operation and Maintenance Expenses" (Ex. 115), answering an inquiry as to the method of arriving at the "Purchase Gas Expense" estimates, the witness answered:

"We first arrived at a summation of the amount of gas to be handled by the Colorado-Wyoming Gas Company by separately arriving at the component parts of that volume. First, the amount purchased for resale; next, the amount purchased for direct sale to industrial customers and public authorities; and, third, the amount purchased for company use in the operation of its compressing stations; and fourth, the amount represented by the lost and unaccounted for gas item of the company.

"These volumes were then computed at the contract purchase rates and the amount of money arrived at, which is entered on the gas expense line in Exhibit 115."

(Vol. 27, p. 3726.)

The contract purchase rates mentioned primarily are those set forth in the contract with the Colorado Interstate Company covering purchases for various uses (Vol. 27, pp. 3726-3728).

The witness was then asked what volume percentage of gas sales under the domestic classification was projected in "Purchased Gas Expenses." The witness stated that for 1939 it would be approximately 50%; for 1940, approximately 55%; for 1941, 54%; for 1942, 55%; for 1943, a little less than 56%; for 1944, a little less than 57%; for 1945, approximately 57%; for 1946, approximately 58%; for 1947, slightly in excess of 58%; for 1948, approximately 59%; and for 1949, slightly in excess of 59%. In the percentages given, the witness related the purchased gas for resale to the total purchased gas (Vol. 27, pp. 3729, 3730).

When questioned as to the percentage of revenues received from "sales for resale," his answer was: "For the year 1939 the revenue derived from sales for resale is 69.9 per cent of the revenue from all sales and in the year 1940 is based on ten months actual and two months estimate, 75.3 per cent" (Vol. 27, p. 3730). The projection of cost of purchased gas in the exhibit was based upon the purchase price thereof as contained in the Colorado Interstate Company's contract and to a very minor extent in the other gas purchase contract (Vol. 27, p. 3733).

(c) *Transmission Operation.*

The witness *Hancock*, upon inquiry explained how he arrived at the estimate of "Transmission Operation," under the general heading of "Operation and Maintenance."

"Transmission operation expense is separated into three general classes of expense, being mains operation, compressor station operation and measuring station operation. Each of these accounts or items of expense

were analyzed as to recent and past experience, and those factors which will affect the various classes of expense during the period of the estimate, taking into account the few changes in expense which arise from changes in classification of expense and from known changes in operating conditions, particularly pertaining to the operation of the new Arapahoe compressing station and to what I believe to be a more extensive operation of the other compressor stations of the company in future years than in past years."

(Vol. 27, p. 3734.)

The total transmission operation in 1938 was $32,514.25; in 1937, $32,664.42; and in 1936, $27,119.69, broken down as follows:

	1938	1937	1936
Mains Operation	$ 4,986.93	$ 5,129.45	$ 3,881.64
Compressor Operation	20,319.22	21,128.04	17,410.98
Measuring Operation	7,208.10	6,406.94	5,825.07

(Vol. 27, pp. 3736, 3737.)

The totals for the years 1939 and 1940 were $35,166 and $35,760, respectively (Ex. 115).

In estimated "Transmission Operation" the increase of $8,010 reflected in 1941 over 1940 was given generally by the witness, as follows:

Transfer in 1940 of expense (2c per M.c.f.) of transporting gas sold to Denver Pressed Brick Company from "Purchased Gas Expense" to "Maintenance Operation," amounting to slighfly in excess of $1,000; added labor in operation of new Arapahoe Compressor Station, $1,680; additional supplies and expenses, including fuel and gas required at that station, $2,320; additional supervision and supplies and expenses, $770; a line walker to patrol the lines of the Company, $1,560, which work previously had been done by men temporarily shifted from the maintenance gang, but due to the increasing amount of maintenance, that is no longer possible (Vol. 27, pp. 3737-3744).

In 1942, the increase of $4,000 in "Transmission Operation over 1941 was broken down as follows: Arapahoe Sta-

tion labor, $1,680; supplies, fuel gas and expense Arapahoe Station, $640; Arvada and Wellington Stations, increased pumping expense, $1,680 (Vol. 27, p. 3745).

In 1943, due to further increased operations at Arapahoe Station, the increase of $3,000 over 1942 represents "the same character of items next previously mentioned" (Vol. 27, pp. 3745, 3746).

In explanation of the reason for the increases in operating costs at Arapahoe Station, the witness stated:

"A. Because of the two additional operators due to the time the operation increases. If a station is operated very infrequently it would only be necessary to have two men in that plant. As the number of units increased, which is reflected also in this estimate, and as the number of hours of operation increased it is necessary to have enough men to perform the shifts that they are required to operate the plant and to occasionally relieve those men during their off time.

* * * * * *

"A. The operating labor in 1942 at Arapahoe station is based as having two full-time men for the year, which doesn't mean that there will be two men uniformly during the year, but the equivalent of two men throughout the year, the balance of the man's time so engaged being charged to other company work that they will be assigned when not on operating duty.

"Q. Then, in so far as the other transmission operation expense is concerned, during those—rather, especially during 1942, that estimated increase is confined entirely to compressor station operation expense?

"A. That is correct.

"Q. In 1943 does that same situation obtain?

"A. The same situation obtains, yes, sir.

"Q. And that also is confined to compressor station operations?

"A. That is correct.

"Q. And for 1944 is it the same?

"A. The same obtains in 1944 and thereafter in regard to labor, but in 1944 and thereafter there will be

further increases in the amount of fuel used at the station as the number of hours operated increases.

"Q. Oh, then, from 1944 on, there will be no increase in labor cost in so far as compressor station operations are concerned, but these increases are attributable to increased fuel cost?

"A. Fuel and other operating supplies.

"Q. For a compressor station?

"A. That is right.

"Q. But in so far as transmission operations are concerned, aside from those attributable to compressor station operation, from 1941 they remain static?

"A. That is right."

(Vol. 27, pp. 3746-3748.)

(d) *Transmission Maintenance.*

Hancock further testified that total transmission maintenance in 1936 was $5,218.28; in 1937 it was $10,990.10; in 1938, $5,315.93; and in 1939 the amount was $5,059.63, broken down as follows:

	1939	1938	1937	1936
Mains Maintenance	$2,298.75	$3,170.97	$8,843.32	$3,234.32
Compressor Maintenance	2,051.11	1,769.08	1,766.12	1,625.52
Measuring Maintenance	709.76	375.88	380.66	358.46

(Vol. 27, p. 3764.)

For the year 1940 the total transmission maintenance was $10,300 (Ex. 115).

Counsel for the Commission then inquired as to the basis for the projected continual increase in "Transmission Maintenance" from 1939 and thereafter—1940 being treated as actual. The cross-examination continued:

"A. The principal basis of the increase in 1941 is because of the plans of the company to overhaul or recondition certain stretches of main lines and branch lines which we now estimate have reached a point where it is desirable and economical to perform that maintenance work.

"Q. Exactly what are the items that go into that figure of an increase—well, for the total figure of $16,000 that you have estimated for 1940?

"A. That increase of $5,700 a year in 1941 over 1940 consists of $4,700 to line maintenance, $750 for compressor station maintenance, and $250 for measuring station maintenance.

"Q. Let's take that first item of line maintenance. What does that contemplate or include? And in connection with that estimated figure for that year, instead of giving us just the increase over 1940, what portion of this $16,000 is attributable by you to line maintenance, rather, just the increases over 1940?"

(Vol. 27, pp. 3748, 3749.)

The witness testified that, of the total estimate of $16,000 for 1941, ordinary line maintenance would be $1,000 (Vol. 27, p. 3749) and extraordinary line maintenance, $10,300 (Vol. 27, p. 3752.)

He defined ordinary maintenance as "the term applied to sundry maintenance of the pipeline system. Take, for example, if a valve would leak and it was necessary to have a man go out and tighten the stuffing box on the valve, but not involving any extensive repairs or reconditioning, * * *" (Vol. 27, p. 3749). As applied to transmission pipeline, he illustrated it as:

"A. The repairing of any damage to the back-fill due to wash by water or land slides or actual repairs to pipe in a moderate amount if there was any leak or there might be damage caused to some line from outside sources.

"For example, during the past two weeks a line has been pulled out of the ground by a contractor working on construction work and that would be classed as ordinary maintenance, the restoration of that line. I make the distinction here between ordinary maintenance and extraordinary maintenance on the basis of size.

"Q Right there on ordinary maintenance, is that the character of maintenance that has been the company's experience heretofore?

"A. Yes, I think that is a pretty fair representation of the experience. * * *"

(Vol. 27, p. 3750.)

"Q. How do you describe extraordinary maintenance as distinguished from ordinary maintenance?

"A. The distinction is usually one of size. By extraordinary maintenance is meant the operation carried on when a section of line is reconditioned. For example, if we had five hundred feet of line in a swampy or highly corrosive ground, it may reach the point that it is no longer economical to continue with temporary repairs.

"Q. Now, I believe you did not, in connection with ordinary maintenance, state, or maybe I didn't ask you, whether ordinary maintenance also included spot welding.

"A. As a general rule it does not. Ordinary maintenance would include putting on a leak clamp, which is a temporary matter and such leak clamp being removed and the defect spot welded at a later time under the extraordinary maintenance program."

(Vol. 27, pp. 3751, 3752.)

"A. And included in the work now being done in 1940 which in the extraordinary maintenance item will amount to approximately $6,000 and most of that work is practically completed, that also including the lines estimated to require that type of maintenance in 1941 and part of 1942.

"Included in that list which will be used, from which to select the lines, to be subject to this type of maintenance, is thirteen hundred feet of 10-inch main line; 8,800 feet of 8-inch main line; 10,500 feet of 6-inch main line; 5,500 feet of branch 6-inch line; 400 feet of 2½-inch line; and 5,000 feet of 6-inch branch line on the Johnstown branch.

* * * * *

"A. It would include the excavation of the line, the lifting of the line from the ditch without removing the pressure from the line, a thorough cleaning of the entire amount of line exposed, the repairing of any defects observed in the line, including the removal of any emergency clamps previously placed on the line, the spot welding of any defects in the line, pits, and so forth, the priming of the line and finally the application of a hot enamel coating to that pipe and then the lowering in the ditch and back-filling, all of the work being done as a general proposition while the line is under pressure.

* * * * *

"Q. Well, if you run into pretty long sections—you have got some pretty long sections of line here, haven't you, all except the 400-foot, and if you should run into a section of that line that was in pretty bad condition after you had exposed it and found that condition, you might find that it would be better to replace certain sections of that line rather than to try to spot-weld it or repair it in that fashion?

"A. Of course, that might be so found, but I don't believe the deterioration will have been advanced to a point where any replacements will be necessary.

* * * * * *

"Q. And in your opinion, from present knowledge, there would not be any replacement necessary in this group at this time or at that time in 1941?

"A. That is my opinion, subject to the statement that there might develop some minor replacements, but I think they would be either absent or very minor in character."

(Vol. 27, pp. 3752-3755.)

In the 1942 program of extraordinary maintenance, in addition to sections of line above detailed, there is also included sections on the Boulder 8-inch and 6-inch lines, the Longmont 3-inch line, Fort Warren and Brighton 2½-inch and 3-inch lines, as well as additional stretches on the lines listed under the 1940 and 1941 heading. In connection with the 1942, as well as the 1941, program, witness believed there was no probability that any portion of the pipe would have to be removed (Vol. 27, pp. 3756, 3757). Pursuant to request of Commission counsel, the witness gave detailed information as to the location of reconditioning operations under the 1940, 1941 and 1942 extraordinary maintenance program (Vol. 28, pp. 3826-3829).

Line maintenance for the year 1943 consists of ordinary maintenance, line moving and extraordinary maintenance of $13,500. For the five-year period beginning during the year 1942 and extending to about 1947, the witness described the "prospective and estimated maintenance" as follows:

"A. * * * On the 10-inch main line, 13,200 feet; on the 8-inch main line, 36,100 feet; on the 6-inch main line, 18,200 feet; on the Boulder 8-inch line, 7,600 feet; on the

Boulder 6-inch line, 6,400 feet; on the Greeley 6-inch line, 5,000 feet; on the Golden 4-inch line, 16,000 feet; on the Longmont 3-inch line, 900 feet; on the Brighton 3-inch line, 5,000 feet; on the Brighton 2½-inch line, 14,400 feet; on the Fort Warren line, 800 feet; on the Cement line, 2,000 feet; on the Johnstown 6-inch line, 7,700 feet.

"The extraordinary maintenance on the foregoing lines will be distributed over the five-year period beginning sometime during 1942 up to about 1947.

"Q. All right, in connection with that extraordinary maintenance during that period, what probability would there be of any replacements of pipe during that work, or that would be carried on, rather, than the repairing or reconditioning of portions of that pipe?

"A. I would not expect a high percentage of replacements to be necessary in these later years. There may be some replacements due to the advanced corrosion as time goes on."

(Vol. 27, pp. 3759, 3760.)

For the years 1948 and 1949, the witness testified the line maintenance will be $20,000 a year, of which $17,800 is extraordinary maintenance. This is a prediction based by an estimate of the expected situation at that time (Vol. 27, pp. 3761, 3762). The foregoing expenses and repairs are predicated entirely on reconditioning operations. If a few feet here and there are replaced, that would be in addition to the reconditioning or extraordinary maintenance expense (Vol. 27, p. 3763). The figures given for the year 1940 cover ten months' actual and the actual figures for the full year "will be very close to that estimate" (Vol. 27, p. 3765).

Pursuant to request of Counsel for the Commission, the witness presented for each of the years 1926 (Partial year) to 1929, inclusive, line, compressor, and measuring maintenance, which ranged from $46 to $620; from $4 to $2,800; and $21 to $200, respectively. This covered the original Fort Collins-Cheyenne System. For the reconstructed and enlarged system for the years 1930 to 1935, inclusive, the same items ranged from $631 to $3,025; $584 to $2,334; and from $4 to $395, respectively. The totals of all three classifications were: $253 for 1926 (partial year); $308 for 1927; $2,002 for 1928; $3,581 for 1929; and for the enlarged sys-

tem—$2,658 for 1930; $5,522 for 1931; $4,483 for 1932; $3,446 for 1933; $2,470 for 1934; and $4,360 for 1935.

(Vol. 27, pp. 3768, 3769.)

In his study reflected in Exhibit 115, the element sought "is how much money would have to be spent for maintenance during each of the years covered by the estimate" and he added "it is to be borne in mind that when a line is selected for maintenance that it is not essential that it be done that particular year. In other words, the line is not in danger of breaking, so there is no emergency condition to meet by prompt action. It is more an orderly program of rehabilitation" (Vol. 27, pp. 3770, 3771).

Between the years 1931 and 1939, there was no substantial increase in the property, the plant and investment account in 1931 being $1,821,171, and in 1939, $1,860,552 (Vol. 27, p. 3774).

With respect to additional construction, *Hancock* testified:

"With the exception of the completion of the Arapahoe station as the second unit for 1941, there is no additional construction contemplated; however, to make that statement plain, I believe I should explain that the loads that are projected in this estimate to 1949 cannot be handled without some additional compressor station facilities some time after 1941. It may be as late as 1945, but I have given no consideration to the exact character or cost of that additional facility or the time when it will be installed. It will be a difficult thing to do but I just want to call attention to the fact that the peak loads represented by the additional business for 1949 could not in my opinion be handled by the facilities which have been described as existing as of 1941."

(Vol. 27, p. 3776.)

(e) *General Expense.*

Under *General Expense*, the witness, HANCOCK testified, that the item "Taxes-General" includes all taxes except "Federal Income Tax", and the increase projected from year to year, excluding also Colorado income tax, was based on the average increase of $1,650 per year during the nine-year period from 1931 to 1940, during which interval as

previously pointed out by the witness there was no substantial change in the plant and investment account of the Company. In 1931, the total taxes, exclusive of Federal and Colorado income tax, was $17,035, of which $16,230 was real and personal property. By 1939, the latter item had increased to $25,353, and in 1940, to $26,924. The basis of these increases was the increase both in the assessed valuation and in the tax rate (Vol. 27, pp. 3773, 3774).

The Colorado general property tax assessed valuation increased from $693,760 in 1931 to $840,610 in 1939, and decreased in Wyoming from $36,586 to $20,180 in the same period. The average mill levy in Colorado increased from .02337c in 1931 to .03047c in 1939, while in Wyoming the rate, in the same period, decreased from .02608c to .02498c (Ex. 119).

The Federal income tax for the year 1939 was computed at the then rate of 16½%, and for the year 1940 and thereafter at the 1940 applicable rate of 24%. Depreciation allowances used in the tax computations, and for no other purpose, are those as approved from year to year by the Bureau of Internal Revenue in connection with corporate income tax (Vol. 27, pp. 3789-3792).

Respecting future general expense, the cross-examination continued as follows:

"Q. With reference to the remaining item under the estimated future general expenses, Mr. Hancock, you have for the year 1940, ten months actual and two months estimated, an increase of some $2,000. What does that represent?

"A. That increase is represented by small increases and decreases in the various items entering into the general expense—other classification, which includes executives' salaries, clerical salaries, legal expense, traveling expense, advisory service fees and expenses, insurance, rent, injuries and damages, regulatory expense, and welfare expense.

"Q. Now, in the year 1941 there is an increase of almost five thousand dollars over and above 1940. What does that represent?

"A. The principal items that increased between 1940

and 1941 are executive salaries, $2,482; legal expense, $600; and clerical salaries, $1,388.

"Q. That column covering Other General Expenses covers a number of items, doesn't it?

"A. It does, yes, sir."

(Vol. 27, pp. 3786, 3787.)

The breakdown of "General Expense" for the years 1939 to 1949, inclusive, is set forth in Exhibit 116 (See Appendix) and in Statement No. 3 "Revised Exhibit 116," of Exhibit 242 (See Appendix).

On cross-examination (Ex. 116), Mr. Hancock testified that Exhibit 116 is a break-down of the general expense item shown in Exhibit 115. The items for 1939 and the first ten months of 1940 are actual, and for the balance of 1940 and for the following years are estimated.

The schedule for increases in executive and clerical salaries was arrived at by H. P. Davis, Secretary of the Company, after consultation with officers of the Company, as to fair compensation, subject to action by the Board. The intended increases will be carried out. Clerical salaries are for action of the management and not the Board. Legal expenses were fixed after consultation with counsel and include annual retainers and all general services (Vol. 28, pp. 3880-3885).

On redirect examination, the witness testified that all items in Exhibit 116 (giving the break-down of figures shown in Exhibit 115) were discussed with the officers of the Company, and figures were carefully prepared which would reflect their considered judgment as to the treatment of the items (Vol. 28, p. 3887).

Q. What other industrial customer had any change in estimated future requirement?

A. The Colorado Portland Cement Company at LaPorte, Colorado is estimated to use during the year 1940, based on ten months actual and two months estimate, 900,000,000 cubic feet, and it is now estimated that in 1941 and thereafter if that company continues to be a customer of Colorado-Wyoming Gas Company, it may reasonably be expected to consume one billion cubic feet per year.

Q. Any other company which may change its require-

ments or that may have different requirements for the future than they have at present?

A. The Coors Company at Golden is expected to use in 1940, based on ten months actual and two months estimate, 15,400,000 cubic feet, and based on our estimate of the future consumption it is believed that beginning in 1941 and continuing thereafter that a fair approximation of the sale to this company will be 18,000,000 cubic feet per year.

The other variations are minor in character, consisting principally of rounding numbers because it is impossible to estimate to a high degree of accuracy due to normal fluctuations in the use of gas by these customers from year to year.

Q. Now, first of all, limiting it to these industrial main lines, isn't it a fact, Mr. Hancock, that any of these industrials would hardly hazard an estimate to a year as far in the future as 1949 as to their particular requirements?

A. Yes, I agree with you that they wouldn't. Our estimate is not based on that. It is based on a discussion with the customer of what they believe their future trends will be, and if there is nothing to indicate a change, the most reasonable course that we could follow in preparing this estimate would be to project it on the basis of present experience.

Q. But not based on any indication that any of these industrial users have made that far in the future?

A. No, except on the general opinions as to volumes that could be utilized in the future. All of these customers' consumption fluctuates from year to year, and while the estimate is predicated on a uniform usage, it is very probable that some years will be higher and some years will be lower, and it is impracticable from a marketing standpoint to definitely predict which of those years will be high and which will be low.

(Vol. 26, pp. 3668-3670.)

* * * * *

Q. Well, isn't that just contrary to ordinary business affairs that they don't remain static?

A. I certainly wouldn't estimate an increase in sales to these customers unless I had some reason for doing it.

and in the absence of that reason and in the presence of information which points to a fairly level continuance of present sales, I would certainly estimate the latter situation.

Q. In the light of your experience, Mr. Hancock, though, do you find that there is any such situation among, particularly among any kind of industrial users that would border on the static over a period of years?

A. I have heard the saying that nothing remains static, but I certainly don't agree with it.

Q. You don't agree with that?

A. Experience does not bear that out.

Q. Not even with reference to an industrial plant?

A. No, sir.

Q. Or with reference to business concerns?

A. Bearing in mind my previous answer that I did not expect these industries to remain static year by year and to buy gas in these exact volumes but that they will have their ups and downs and some years may be low and some high or in some years some industries may be a little higher and others may be a little lower, that the projection represents the most reasonable approach that I know to a total figure for the group as a whole.

Q. But you still are definitely of the opinion that you would be on much safer ground to hazard a static situation or one that remains comparatively static than to hazard an estimated future increase or future decrease?

A. Yes.

Q. And that, over what period of time?

A. Over the period covered by this estimate.

Q. And I notice that that period ends in 1949. Why does it end at that time?

A. That being the year in which the gas supply contract of Colorado-Wyoming Gas Company terminates.

Q. Oh, that is the termination date according to the terms of the contract between Colorado-Wyoming and Colorado Interstate Gas Company?

A. Yes, sir.

Q. And have you made any investigation with reference to the situation as to that termination date as to its actual termination at that time or possible continuance on?

A. No, sir.

(Vol. 26, pp. 3672-3674.)

Q. Now, among those industrials, aren't there any of them that would be affected by the present defense program?

A. I have no reason to believe that that would materially effect the forecast. It might in some instances.

Q. You mean in so far as the industrials listed here are concerned?

A. That would be a possibility, yes, sir.

Q. Well, if it did affect them, it would indicate what? An increase in estimated future requirements?

A. I think that would be a reasonable assumption.

Q. And you did not include that in your estimate, though?

A. No, sir.

Q. Why not?

A. Only the normal amounts, I might say, of expected increases. If one of these companies would convert its facilities or employ its facilities for purposes connected with defense, it might materially change the volume of gas purchased by that customer, but I know of no indication which would warrant me in making such an estimate at this time and neither am I prepared to say that that will not happen, but at the same time I am not prepared to say that it will.

Q. Well, then, if it is as uncertain as to not happening as it is to happening, why wouldn't you give it consideration rather than to take the position that the situation is apt to remain static?

A. I know of no reason for assuming that it will not happen, nor estimating that it will happen.

Q. Now, who at these Army posts were seen with reference to their estimated future requirements?

A. I couldn't give you the names of the officials.

Q. Well, who communicated with them?

A. Mr. Thackrey, in most instances.

Q. At both forts?

A. Yes. Perhaps Mr. Shortess or Mr. Davis, in certain instances.

Q. What are the present sales—annual sales—to each of those forts?

A. The annual sales in volume—

Q. Yes.

A. —for the full year of 1939 at Fort Warren was

18,527,000 cubic feet; at Fort Logan, 8,776,000 cubic feet; the Prison Farm wasn't a customer during 1939.

Q. Now, as to Fort Warren and Fort Logan—

Mr. McCreery: He has got one more.

Mr. Lange: Oh, yes.

The Witness: The sale to the Denver Water Board in 1939 was 9,010,000 cubic feet, making a total in 1939 of 36,313,000 cubic feet.

By Mr. Lange:

Q. Well, now, the Fort Warren and Fort Logan—what are your estimates with reference to those two purchases for the years beginning 1941?

A. If I may refer to the interval there, being 1940, before leading up to 1941—

Q. Yes.

A. —at Fort Warren, the 1940 sale, based on ten months actual and two months estimated, is 18,904,000, which is slightly in excess of 1939, which was 18,527,000.

At Fort Logan the 1940 sale, actual and estimated, is 8,073,000 which is a decrease under the 1939 figure of 8,776,000. In 1941 we have estimated that the Fort Warren sale will be 20,300,000, and that the Fort Logan sale will be 8,800,000.

Q. You say that you estimated that on what basis?

A. On the basis of the discussions with the officials at both Forts as to probable increases in the usage of gas, as to the probable effect of increased personnel at these forts and whether or not such increased personnel would be by the same division of the Army or other defense units and whether or not such sale would come under this contract and whether or not such additional facilities would use or require gas at all. We have no definite information that that is the case.

Q. Well, if there were additional personnel at either one of the forts it would follow very definitely that there necessarily would be an increased use of gas there, wouldn't there?

A. Well, not if the additional personnel was housed in a new area, in buildings not supplied by gas under this con-

tract, and by a division which was not included under this contract.

Q. Well, in what way are those limitations in this contract, as not being applicable to the other?

A. The contract is made with a definite branch of the Army. If some other branch moves in it would make its own contract.

Q. Well, where would they get their gas at either fort if they didn't get it from your company?

A. I wouldn't know of any other supply at either fort.

Q. Wouldn't it necessarily follow, then, that with the limitations in the present contract if there were additional personnel at either of the forts, the changes in the contract necessary to permit the supplying of the necessary amount of gas there would be forthcoming without question?

A. Along with that would necessarily go the assumption that these additional units desire to use gas and that is not necessarily true.

Q. Well, are they using any other fuel at either fort now?

A. Oh, yes, the amount of gas is a small part of the total fuel consumption.

Q. What are the uses of gas at those forts at the present?

A. For domestic purposes only, and not for the heating.

Q. You mean for cooking and water heating?

A. Yes, sir.

Q. Well, if there were an increased personnel, there would be an increase in the use of gas for those purposes, wouldn't there?

A. Not unless the enlarged facilities were equipped to use gas and made a contract to use gas. If, for example, in the quarters of an officer if other officers moved in, why, they would occupy additional quarters.

Q. Well, using your yardstick that what is being presently done is a better guide than a variation from that, if that is what is presently being done at both forts, if there were an increased personnel, wouldn't you then also assume that that would be followed in the same fashion as it is being carried on now?

A. Not necessarily, no, sir.

Q. The uses?

A. No, sir.

Q. Why do you vary on that score?

A. Because the authorities who purchase this fuel may prefer some other fuel.

Q. Yes, but that may occur with reference to any of these other users that you have made the assumption that it is more accurate to continue on a basis presently obtaining rather than deviate from that?

A. That is what we have done in the case of these two forts except we have made some increases in the volumes. For example, the volume at Fort Warren, which I mentioned in 1940, of 18,904,000 cubic feet, we have estimated will increase to 21,000,000 in 1942.

Q. And what do you estimate will happen in 1943?

A. We have maintained the same figures after 1942.

Q. Right on through to the end?

A. That is right. It may vary, and undoubtedly will vary from year to year, but we have no means of predicting the extent of those variations from year to year.

Q. Well, do you have any means of extending these predictions on sales for resale right through every year? You begin with—after the actual at 1941 with 1,970,800, and then two million two; 208; 214; 219; 223; 227; 231, right on through to 1949. How do you get those variations spelled out in your sales for resale?

A. The principal factor which increases the sales for resale is the selling of additional house heating gas; that is, the conversion of customers from the strictly domestic classification to the house heating classification and that results in a very large increase per customer so converted. The industrial portion of the sale for resale to which you have referred is practically uniform.

Q. When does it become static in that column?

A. It is practically static for the entire period. There are slight variations.

Q. Well, let's see, from the first year that you estimate for the future on your sales for resale, what is the breakdown by classifications for that first year between domestic and industrial resale?

A. For 1941—

Q. Yes, 1941.

A. —the domestic sale for resale is—strike that, the domestic sale for resale is 1,482,200,000, and the industrial

town border sale for resale is 424,800,000, making a total of 1,907,000 cubic feet in 1941.

Mr. McCreery: Wait a minute. Correct that figure—1,907,000 Mcf., rather than cubic feet, isn't it?

The Witness: 1,907,000,000 cubic feet. That is the correct figure.

By Mr. Lange:

Q. Cubic feet?

A. Yes.

Mr. McCreery: He said 907 thousand.

By Mr. Lange:

Q. Now, in connection with these sales for resale industrial, what inquiry was made of those industrials that are in that resale class in Cheyenne, Wyoming?

A. No direct inquiry, the inquiry being made to the Cheyenne distributing company, and obtaining its estimate of the amount of gas which it expected to sell to its customers.

Q. Oh, then in connection with the possible future sales or estimated future sales in Cheyenne, Wyoming, that information, whatever you have on that, was given to you by the Cheyenne Light, Fuel & Power Company?

A. That is right. Consideration of that information was given in the preparation of these figures.

Q. Entirely—that is, you based that entirely on their information without any independent investigation of your own?

A. No, the figures were modified or tempered as the men making this estimate saw fit. In general, however, the information obtained from the local distributing companies was reflected into the figures.

Q. Was that a formal communication, or in what fashion did you get that information?

A. In conference.

Q. In conference?

A. Yes, sir.

Q. And do you know what character of survey the Cheyenne Light, Fuel & Power Company made?

A. Yes, they make a continuous survey of their market

prospects as to the per cent of saturation of house heating customers, and the per cent which they expect and intend to strive to get year by year, in the future.

Q. Well, have you a schedule of what they estimate the future requirements to be?

A. I have a schedule which is different to the final conclusion, but I think it conforms fairly closely to their estimate. The Cheyenne Light, Fuel & Power Company is estimated to purchase in 1941 for domestic purposes 494,200,000 cubic feet, and for industrial purposes 55,000,000 cubic feet, or a total of 549,200,000 cubic feet.

Q. For what year?

A. For the year 1941.

Q. All right, the year beyond that, did they estimate that?

A. The estimate for each of the remaining years is shown in the same fashion. The following year, 1942, the Cheyenne Light, Fuel & Power Company is expected to purchase 516,900,000 cubic feet for domestic purposes and the same 55,000,000 feet for industrial purposes, there being no upward trend in that business.

Q. No upward trend in that business at all?

A. No, sir.

Q. Is that the estimate of the Cheyenne Light, Fuel & Power Company?

A. Yes, sir.

Q. And do you know what character of industrial survey they made in order to base their estimate on that assumption?

A. I do. They make a continuous industrial survey.

Q. They do?

A. As a matter of industrial solicitation from day to day and year to year.

Q. How many industrial customers do they serve for resale?

A. I don't believe I have that figure before me. I may be able to find it here in just a minute.

There were twelve in the year 1936 and eleven each year up to the present time and we have estimated that it will remain at eleven.

Q. No consideration given to any possible new industrial customers there?

A. We have no reason to do so and we did not.

Q. You just assumed that that same number would stay on?

A. It is possible that a new customer will enter the area or that one or more of the present customers may stop the use of gas, but we—

Q. Do you know—

Mr. McCreery: Just a moment. Let him finish.

Mr. Lange: All right.

The Witness: I believe that is all.

By Mr. Lange:

Q. Do you know to what extent the industrial customers in Cheyenne estimated their future requirements when they were interviewed by someone from the Cheyenne company?

A. I know that there was no indication of any substantial change in the volume expected to be purchased by these customers as a group. There will always be, of course, variations in the purchases by individual customers and in a group as a whole from year to year, but there is no reason to believe that that will change substantially from year to year and no means of estimating in which year such change, if there is a change, occurs.

Q. Well, going back, though, applying the same assumption to those resale industrials you still maintain that it is much safer to assume a static condition for the future rather than to change?

A. Only under circumstances in which there is evidence —change that—only under circumstances where the evidence points to a fairly uniform continuation in the future.

Q. On the other hand, from all indications that you had in your conferences or correspondence with any industrial users, haven't they always indicated their unwillingness to predict more than a year in the future?

A. That is correct.

Q. Well, what reason did they give for that unwillingness?

A. Because they were unable to predict.

Q. Well, wouldn't the course of least resistance for them to follow, be to attempt a prediction?

A. I wouldn't know what their course would be.

Q. You wouldn't know what their course would be?

A. No.

Q. You have made no further effort than your contacts with them to get whatever prediction they have up to the point that they want to give it?

A. Well, that was the only effort that it was possible for us to make and we made that effort.

Q. And then projected your assumption from there on out?

A. That is correct.

Q. Now, did you read into the record the list of industrial main line customers, those sold directly off the line?

A. I referred to various customers but I don't believe I read the entire list.

Q. I'd like to have the list of those main line industrials.

A. The Golden Fire Brick Company at Golden, the Denver Pressed Brick Company at Loveland, the Great Western Sugar Company at Johnstown, the Kuner-Empson Company at Brighton, the Coors plant at Golden, the Continental Oil Company north of Fort Collins, the Producers Canning Company at Fort Collins, the Colorado Portland Cement Company at Laporte, and the Public Service Company of Colorado at Valmont, a total of nine.

I might explain that the Public Service Company of Colorado at Valmont used a small amount of gas in 1939, but is not a regular user of gas.

Q. These industrials that you just named are regular users of gas?

A. The first eight are regular users.

Q. And what use is made of the gas by these industrials? If it is different, will you indicate it?

A. It is somewhat different. The Golden Fire Brick Company and the Denver Pressed Brick Company use it in the manufacture of brick. The Great Western Sugar Company uses gas in a certain part of their process, preparing some of the materials used for purifying their product. The Kuner-Empson Company at Brighton is, I believe, a food products company and gas is used in the preparation of those products. The Coors plant at Golden uses the gas in the preparation of hops. The Continental Oil Company north of Fort Collins uses the gas in field operations, such as pumping powers, or other purposes.

The Producers Canning Company at Fort Collins uses gas in the production of their food products. The Colorado Portland Cement Company at Laporte uses gas in the burning of clinker in the production of cement. The Public Service Company of Colorado at Valmont used gas in 1939 in a power plant at that location.

Q. Now, Mr. Hancock, with reference to these main line industrials, have they all been on the line a number of years?

A. Not all of them, but most of them.

Q. They are all established industries?

A. Yes, with the exception of the Continental Oil Company to which I referred and the particular usage of gas by that company at Fort Collins—north of Fort Collins—is used, subject to discontinuance for the reasons previously mentioned.

Q. Now, the industrials that you have named have all been on the line at least five years, haven't they?

A. I believe that would be true.

Q. All right, let's take the first one. What has been the trend in its purchase of gas during that period?

A. Beginning in the year 1936, and beginning with the first customer, the Golden Fire Brick Company, a consumption by years has been as follows: 73,269,000 cubic feet; 77,880,000 cubic feet for 1937; 72,185,000 cubic feet for 1938; 66,921,000 cubic feet for 1939, and an estimate based on ten months actual and two months estimated for 1940 of 45,000,000 cubic feet. I might say in connection with that plant that the estimate made for 1940 prior to the beginning of the year—I happen to have that figure before me now—was 67,000,000 cubic feet, but the actual experience during the year for the first ten months and the estimated experience during the remaining two months indicates that the sale during 1940 will be 45,000,000 cubic feet.

Q. Well, what about the Colorado Portland Cement Company?

A. Beginning in the same year, 1936, the Colorado Portland Cement Company purchased 916,017,000 cubic feet; in 1937, 961,897,000 cubic feet; in the year 1938 it purchased 706,144,000 cubic feet; in 1939 it purchased 1,015,502,000 cubic feet.

Q. Now, then, what did the Colorado Portland Cement

Company tell you with reference to their estimated future requirements?

A. That company told us that they expected to run during 1940 about a normal rate. However, it developed that that was somewhat optimistic.

Q. What did they infer by "normal rates"?

A. Approximately one billion cubic feet.

Q. Approximately one billion cubic feet?

A. That is correct, and that was the estimate that the Colorado-Wyoming Gas Company made prior to the beginning of 1940, but during 1940 it developed that the period of opening the plant was somewhat later than normal and it now develops that instead of running to December 31st or later, as previously estimated, that it will close on December 15th.

Q. Well, what assumption have you given their future requirements?

A. For the year 1940, have estimated 900,000,000 cubic feet.

Q. You mean actual?

A. That is based on actual up to the day of the estimate, plus an estimate of the remaining portion of the year and thereafter, beginning in 1941 and extending to 1949, we have estimated if that company continues to be a customer that it will use one billion cubic feet per year.

Q. Over what period?

A. One billion cubic feet per year.

Q. Per year?

A. Per year.

Q. On through to the end of your estimated period?

A. That is right. There is no reason to believe that that consumption will be substantially increased as the use of gas by that or any other cement plant is necessarily limited, not only to its sale of cement, but to the number of kilns which are installed and unless the plant is enlarged, that will be the limitation on its use of gas.

(Vol. 26, pp. 3678-3695.)

* * * * * *

Q. And you related these estimates entirely on that phase of it to these purchase price figures as reflected in this contract?

A. As reflected in the Colorado Interstate Gas Com-

pany's contract and to a very minor extent in the other gas purchased contract.

Q. To what extent in the other gas purchased contract?

A. To the extent that gas available under that contract is very minor in character.

Q. In fact, almost—What percentage of the total amount of gas purchased by your company is purchased from the Colorado Interstate Gas Company? Take the year 1939.

A. Between 98 and 99 per cent.

Q. Between 98 and 99 per cent?

A. Yes, sir.

(Vol. 27, pp. 3733-3734.)

"Now, Mr. Hancock, in connection with this program of maintenance that you have projected, you heretofore referred to the situation which comes to pass when a line becomes seasoned.

"A. That is right.

Q. And when in your opinion will this line become seasoned?

A. I don't believe I have arrived at an opinion on that question.

Q. And doesn't that have any—strike that.

Doesn't the determination of that have a direct bearing on this estimated future maintenance?

A. No, you could arrive at the estimated future maintenance without ever giving the question of whether it was seasoned thought or not. That is merely a conclusion that you would arrive at for discussion purposes, but regardless of when it became seasoned would be somewhat of academic interest. The element sought here is how much money would have to be spent for maintenance during each of the years covered by the estimate.

Q. Well, this last four-year period of estimated maintenance, hasn't that any element of the seasoning period in it, or leveling off?

A. It probably could be so considered. However, as I explained this morning, the leveling off there is more a selection of the jobs to be done in those years in order to even out the extraordinary maintenance program. It should be borne in mind that when a line is selected for mainte-

nance that it is not essential that it be done that particular year. That could be deferred until the following year. In other words, the line is not in danger of breaking so there is no emergency condition to meet by prompt action. It is more an orderly program of rehabilitation.

Q. Now, in connection with your preparation of this program of estimated future requirements on transmission maintenance expense, and the maintenance therein contemplated, what—strike that "what"—did you give any consideration to the provisions of the Commission's uniform system of accounts for natural gas companies?

A. In estimating the maintenance costs—

Q. In estimating all these items that go into these figures that you have under transmission maintenance?

A. —I followed, in classifying the items, the division which I am accustomed to in following the books of this company. As to whether it conforms with the uniform system of accounts or not, I don't know.

Q. Do you know what the uniform system of accounts provides for with reference to the matter of retirement units of the company's property?

A. No, sir, I wouldn't be qualified to testify as to that.

Q. You gave no consideration to that in the preparation of this estimate?

A. No, sir. The only thing that I did in making this estimate was to forecast the amount of money that would be necessary to be spent on the lines. It can be stated under any account numbers whatsoever. That wouldn't effect my estimate.

Q. Well, what is the company's program with reference to the time limit of its property units?

A. I haven't given any study to that.

(Vol. 27, pp. 3769-3772.)

* * * * *

The Trial Examiner: Mr. Lange, before you get off of that, off of taxes, I have a question to ask the witness.

Mr. Hancock, with the exception of this compressor station, the Arapahoe compressor station that is assumed to be completed, there was no major program put, was there, for additional construction in this system?

The Witness: With the exception of the completion of

the Arapahoe station as the second unit for 1941, there is no additional construction contemplated; however, to make that statement plain, I believe I should explain that the loads that are projected in this estimate to 1949 cannot be handled without some addition to compressor station facilities some time after 1941. It may be as late as 1945, but I have given no consideration to the exact character or cost of that additional facility or the time when it will be installed. It will be a difficult thing to do but I just want to call attention to the fact that the peak loads represented by the additional business for 1949 could not in my opinion be handled by the facilities which have been described as existing as of 1941.

The Trial Examiner: That is, the compressor station facilities, or do you have—

The Witness: I am referring principally to the compressor station facilities. I believe that is all that will be required, but at the time that that requirement has to be met, I believe it can be met more intelligently by a study at that time than we would be able to do at this time.

(Vol. 27, pp. 3776-3777.)

* * * * *

Commission Exhibit 202 (Appendix this Record).

Commission accounting witness, whose qualifications are elsewhere herein set forth, described Commission Exhibit 202 as follows:

The Witness: "This report sets forth the income accounts of Colorado-Wyoming Gas Company for the years 1925 to 1939, inclusive, in thirty-seven statements, schedules, and subschedules. It contains income accounts for each of the years 1939, 1938, and 1937, reclassified and adjusted in detail, and income accounts for each of the years prior to 1937, reclassified and adjusted for more significant items only.

"In presentation, a distinction between tabulations has been made by designating the major or master tabulation as

statements and the subordinate or supporting tabulations as schedules and subschedules.

"The statements, seven in number, comprise Statements B1, B2, and B3, which are condensed income statements per books and as adjusted, for the years 1939, 1938 and 1937, respectively; Statement B4, which is a tabulation of Expenses Suspended for the Consideration of the Commission for the years 1939, 1938 and 1937; Statements B5 and B6, which contain Condensed Income and Surplus Accounts for each of the years, 1925 to 1939, inclusive, as reclassified and as adjusted, respectively; and Statement B7, which is a computation of the rate of return for the years 1926 to 1939, inclusive.

"Statements B1, B2, and B3, show by major groupings of income: (1) Income per books, (2) Examiner's Adjustments, as summarized from adjustment entries presented in Schedules B10, B11, and B12, and (3) Income as Adjusted. The Income Account was adjusted to make it more nearly reflect the legitimate operating income of the company from gas operations. In addition to the three classifications enumerated above, Statements B1, B2, and B3, contain also items of Income Suspended for the Consideration of the Commission, which are tentatively included in Income as Adjusted by the Examiner. These suspensions are more fully described and explained in a discussion of Statement B4, below.

"The Examiner's Adjusting Entries, which are summarized in the Schedules B10, B11, and B12, for the years 1939, 1938 and 1937, respectively, are set forth in detail, entry by entry, mainly in Schedules B13, B14 and B15. There are twenty-nine entries, each of which is designated by one of a series of numbers that runs from '100' to '128' and each entry is designated on Schedules B10, B11, and B12, by its numbers so that through the medium of these summaries the individual entries are related to the Income Accounts presented in Statements B1, B2, and B3. In addition to entries in the '100' series, the summaries also contain entries from the '200' and '400' series, which were made primarily in connection with the reports on this company entitled 'Gas Plant Accounts and Examiner's Adjustments' and . . . ."

By Mr. Lange:

Q. That's Exhibit 199?
A. That is right, yes.

"• • • 'Annual and Accrued Depreciation of Gas Plant Accounts and Examiner's Adjustments,' respectively."

Q. That's Exhibit 201?
A. That's right.

"Schedules B16, B17, and B18, and their subschedules support the item 'Operating Revenues' that appears in Statements B1, B2, and B3, for the years 1939, 1938 and 1937, respectively. By customer, these schedules show point of delivery, contract metering base, revenue from sales, number of Mcf. sold on contract metering base and as translated to a uniform base of 14.65 lbs. pressure per square inch, and the average rate per Mcf. on the contract metering base and on the uniform base of 14.65 lbs.

"Schedules Nos. B19, and B20, and B21, and their subschedules support the item 'Gas Purchased for Resale' that appears in Statements B1, B2, and B3, for the years 1939, 1938, and 1937, respectively. By vendors, these schedules show point of delivery, contract metering base, purchase price of gas, number of Mcf. purchased on contract metering base and as translated to a uniform base of 14.65 lbs. pressure per square inch, and the average rate per Mcf. on the contract metering base and on the uniform base of 14.65 lbs. Subschedule No. 1 of each of the Schedules Nos. B19, B20, and B21, is an analysis of the cost of gas purchased for industrial distribution. By industrial customer, these subschedules show in the same manner that the schedules do, the cost, the quantity, and the average rate of gas purchased for resale. Subschedule No. 2 of each of the Schedules Nos. B19, B20, and B21, is an analysis of the cost of gas purchased for residential and commercial distribution. They show the cost, the quantity, and the average rate of gas purchased for resale in the same manner that the schedules do, but instead of showing it by customer as the Subschedules Nos. 1 do, they show it by the five price blocks at which this company made its purchases of gas, namely at 50 per cent of revenue, and at 10 cents, 20 cents, 22½ cents, and 35 cents.

"Schedules B22, B23, and B24, support the item 'Operation and General' that appears on Statements B1, B2, and B3, for the years 1939, 1938, and 1937, respectively. By account, these schedules show expenses of Transmission Lines, Compressor Stations, and Measuring Stations, and General Expenses, per books and as adjusted. They also show suspensions.

"Schedule No. B25, which contains a tabulation of Operating and General Expenses for each of the years 1934 to 1939, inclusive, supports the item 'Operation and General' that appears for each of those years in Statement B6. By account, this schedule shows expenses of Transmission Lines, Compressor Stations, and Measuring Stations, and General Expenses; for the years 1934, 1935 and 1936, it shows them per books and for the years 1937, 1938 and 1939, as adjusted. The figures in this schedule for the last three years are identical with the figures shown in the 'as Adjusted' column of Schedules B22, B23, and B24; they were repeated in this schedule as part of the comparison of the operating expense accounts for the six years ended December 31, 1939.

"Schedule No. B26 shows the amount of Maintenance for the years 1934 to 1939, inclusive, per books. No adjustments are proposed. Certain items for the year 1937 considered by the Bureau of Engineering to be extraordinary maintenance are listed at the bottom of the schedule. Substantially all of these items were incurred in connection with the reconditioning of a section of the company's main line north of Fort Collins, Colorado. The totals shown for each of the years 1939, 1938, and 1937, agree with the amount of maintenance shown on Statements Nos. B1, B2 and B3, respectively, and the totals for all six years with the maintenance for those years shown on Statements Nos. B5 and B6.

Schedule No. B27 shows for each of the years 1939, 1938, and 1937, the kind of taxes assessed against the company, exclusive of income taxes, the basis of the assessments, the rate of taxation, and the resulting tax. The schedule supports Statements Nos. B1, B2, and B3.

"Schedule No. B28 is a list of surplus adjustments and indicates the effect of these adjustments on various income accounts for the operations of certain years.

"Schedule No. B29 is a schedule of gas used by the company during the years 1939, 1938, and 1937, expressed in volume stated at a pressure base of 12.9 lbs. per square inch absolute and in dollars of cost computed at 12½ cents per Mcf.

"Schedule No. B30 is a reconciliation of the gas purchased by this company from Colorado Interstate Gas Company for the years 1939, 1938, and 1937, as shown by the adjusted accounts of Colorado Interstate Gas Company (cf. report on Income Accounts and Supplemental Data of Colorado Interstate Gas Company, Subschedule No. 1 of each of Schedules Nos. 17, 18, and 19) * * *"

Q. Is that Exhibit No. 140 that you there refer to, Mr. Smith?

A. Yes, that is correct.

"* * * and by Schedules B10, B20, and B21, of this report.

"Statement B4 comprises six items of expense that have been suspended by the Examiner for the special consideration of the Commission. It designates them by letters, A to F, inclusive, and fully describe them, giving specific reasons why they are so classified, and in some instances puts forth suggestions or recommendations as to the disposition to be made of them. The biggest suspension is the cost of gas purchased by this company from Colorado Interstate Gas Company, an item which obviously must remain suspended until the Commission has made its determination relative to the Colorado Interstate Gas Company. The other items may briefly be described as follows: fees paid Petroleum Advisers, Inc. (a mutual service company), Managements fees paid Public Service Company of Colorado, Legal fees, and Federal and Colorado Income Taxes. These items were suspended by the Examiner in his attempt to determine whether or not they were properly allowable and if so to what extent, because he had no adequate precedent to guide him or else lacked information about the nature of the items themselves. The four appendices of this report relate to two of the suspended items.

"Statements Nos. B5 and B6 are each Comparative condensed Income and Surplus Accounts for the years 1925 to 1939, inclusive; B5 is per books and B6 is as adjusted.

"Statement B7 is a computation of the rate of return earned by the company on its utility operations in each of the years 1926 to 1939, inclusive. For each of these years the sum of one-half of the total of Gas Plant in Service at the beginning and at the end of the year, as adjusted, is considered as the average balance of gas plant in service during the year.

"The average balance in the Reserve for Depreciation of Gas Plant in Service, as adjusted, determined in the same manner as the average balance of Gas Plant in Service, is deducted from it to arrive at the net average investment in Gas Plant in Service. To this investment was added an amount to cover Working Capital Requirement. The amount allowed for this requirement each year was the amount developed by the Examiner for the year 1939. Finally, the average yearly balance of Contributions in Aid of Construction, as adjusted, was deducted. The division of the amounts of annual net utility income, as adjusted, by the amounts of the resulting bases produce the rate of return for each year.

"Over the 14-year period the company's Rate of Return on its Gas Plant operations, thus computed, has averaged 12.27 per cent per annum."

(Vol. 67, pp. 9728-9736.)

* * * * *

Cross Examination.

By Mr. McCreery:

Q. Mr. Smith, in connection with this Exhibit 202, why did you include the income accounts of the company from the beginning of its operation?

A. Primarily, of course, for information purposes, and to go on with that, the reason I thought that information might be of use was because we had found it necessary to restate the depreciation; we therefore had applied several adjustments to the company's per book figures, the most significant of which is, of course, depreciation with reference to those earlier years and then it seemed to me that Statement B7 which tabulates the return which the company had earned as therein computed, might be of value from an information standpoint in these proceedings.

Q. What materiality does the income account, we'll say for 1929 have—your adjustments and depreciation and capital accounts are made in other exhibits, are they not?

A. They have been determined, we might say, in other exhibits, and then carried forward to this exhibit from the other exhibits.

Q. But otherwise determined in your other exhibits. They aren't determined in this exhibit, they are just carried forward in this exhibit?

A. You are referring to depreciation as adjusted?

Q. Other adjustments that you found or felt necessary to make in connection with, we'll say, with the property account and in connection with the study on depreciation and annual retirements, those are just carried forward in this exhibit with respect to the years 1929, say?

A. Yes, I believe that is a correct statement.

Q. Well, now, what value or relevancy has the income account of this company for 1929 in this proceedings?

A. Well, just whatever weight, as I see it, that the Examiner or the Commission—I mean, the Trial Examiner or the Commission wishes to give to it.

Q. What weight could it have?

A. Well, I believe that that is for them to determine.

Q. Well, you must—you said you included it because of what weight it might have. What was your idea of the weight it might have? Put it that way.

A. Well, it gives information as to the history of this company, as to its results over the past years. It ties in our results at the end so that anybody who would take our balance sheet and our surplus accounts as we have adjusted them and would feel more—would feel much more secure about the figures resulting in the final balance sheet, if they are backed up with this sort of thing.

Q. This isn't a reclassification proceedings.

A. I don't know what you mean by "reclassification."

Q. A proceedings to establish a system of accounts under Section—I believe it is 8 of the Act.

A. Well, that being a legal matter I don't know.

Q. That isn't a legal matter, it is a factual matter, Mr. Smith. The reason I asked the question was because you appeared to treat it as though it were that kind of a proceedings and that is why I asked that question to find out

whether you understood the difference between a rate case proceeding and a proceeding to establish a uniform system of accounts under the Natural Gas Act.

A. That is your interpretation of it, I think.

Q. Well, is it yours?

A. I have tried to supply information. Now, the use to be made of that and the weight to be given it is something that I haven't tried to dictate at all and I am not at this time. I don't know what weight may be given to it.

Q. You don't undertake to say that it has any relevancy as far as you are concerned?

A. Not from a legal standpoint, no.

Q. Well, an actual point of view?

A. From an accounting point of view I think that it is much better to have these things tied in to show that our income accounts tie in with the plant and they tie in with the surplus, and that we have given a correlated picture as a whole. I think that is very important from an accounting point of view.

Q. Is it material to the Commission in any way to know what your ideas are with relation to the rate of return that this company might have received in past years?

A. This company?

Q. This company, yes.

A. I think that the Commission must have been interested in that or I wouldn't have been asked to put such a schedule in.

Q. You were asked to put that in?

A. That is right, I was asked to put that in.

Q. By whom?

A. Well, as I recall, I think Mr. J. P. Jackson, Assistant Chief Accountant who was in charge of the investigation up until his resignation in about June or July 1940. He requested that that schedule be included.

Q. That being Schedule B7?

A. Statement B7 of Exhibit 202.

Q. So that that was done under his suggestion or direction?

A. That is one reason I have for doing it.

Q. What other reason did you have?

A. Because I think it is good information to put before a body in a case of this kind.

Q. He directed you to put it in, however?

A. Yes, that is correct.

Q. Now, in your Statement B7, you didn't include in that any charges against income for certain of the accounts which you suspended, did you?

A. Yes, all the accounts—the accounts which were suspended, the expenses suspended for the further consideration of the Commission on Statement B4, for the years 1937, 1938 and 1939, are all treated on Statement No. B7 as though they were fully allowable expenses.

Q. Now, do you mean to say that regulatory commission expense is in the figure?

A. I will go ahead with that. I am glad you called my attention to that.

Q. Yes.

A. I thought you were referring to such things as income taxes and legal fees, but they are in. Now, with reference to the regulatory commission expenses, our treatment there has been to take them out of the expenses reflected in the income account and put them into a balance sheet caption, designated "Other Deferred Debits," and that has the effect of suspending them for the time being until the Commission determines the disposition that should be made of them, and therefore you are correct in saying that our tabulation of the return earned by the company for the year 1939 as adjusted by us does not include any deduction in expenses against income for expenses in connection with this rate proceedings.

Q. So whether that is set up as a single item in one year or amortized, shall we say, over five years, there is no reflection of either procedure in your rate of return figures as shown in Statement B7?

A. No, it is treated in Statement B7 you might say just as though it had never happened.

Q. Just as though it had not been spent?

A. Yes.

Q. Now, Mr. Smith, turn to Page 11 of your Exhibit 202.

(Vol. 67, pp. 9739-9744.)

* * * * *

Item No. 104, "Bad Debts—International Metal Foundation" is listed as $444.26. You have disallowed that entirely so far as the rate payers are concerned?

A. I have an explanation there.

Q. All right.

A. The company handled this item on its books as a debit to revenue, I believe, and I believe your accounting exhibits you put in show it that way. In my reclassification for accounting convenience so as to not get this item mixed up in the revenue schedule, I classified it as an operating expense even though not handled that way on the company's books.

Q. You took it for what you really felt it was?

A. I felt as though it was an expense item of some sort rather than a debit to revenue. I believe that is the prevailing accounting practice.

Q. Having done that and having so reclassified it, then why did you take it out of that amount of money which we have been allowed to collect from the rate payer? You did that in this item, did you not?

A. I put it down in the miscellaneous income deductions.

Q. Which would be deductions that would not be chargeable against the rate payer?

A. That is correct.

Q. Why is that not a proper item?

A. For one reason, it pertains to a direct industrial customer.

Q. It doesn't relate to the sale for resale in general or sale for resale to Cheyenne, either one, does it?

A. No, not in any sense as far as I can see it.

Q. So your real reason for putting it in miscellaneous revenue after you reclassified it, Miscellaneous Deductions, rather, was with respect to a portion of the business which is not under the jurisdiction of this Commission, is that true?

Mr. Lange: Of course, that is purely a legal question and that would be a legal conclusion as to whether this Commission has jurisdiction.

Mr. McCreery: I am trying to find out why the witness did it, that is all.

The Witness: It relates to the business of a direct industrial customer.

By Mr. McCreery:

Q. As distinct from a sale for resale customer?

A. Yes. The two types of customers are naturally distinct, and I think there may be another reason for handling it as I have. I believe that is the first item of bad debts this company has had in a good many years and I think that it would probably be a very unusual circumstance that it would have any bad debts, because of the fact it sells only for resale and to large industrial customers.

Q. In general?

A. In general. I think that is a further reason for excluding this particular item from the expenses for 1939 on which to get picture of its normal operations for that year. In any event, if we hadn't decided to put it below the line, so to speak, I would have treated it as a nonrecurring expense.

Q. A nonrecurring expense may still be allowed against the rate payer, may it not?

A. That I don't know, but it is certainly is flagged and set out separately in consideration of whatever use may be made of these figures for 1939 in setting a rate.

Q. In setting this up you say you are trying to produce a normal picture for 1939. Just what do you mean by that and what is the purpose? The figures you arrive at are embodied in your Statement B7 in trying to set up a rate of return, are they not, and this figure here is not in any part of that?

A. This figure here is not in any part of that and of course it is too small to have any effect upon the results in Statement B7. It wouldn't change that percentage one way or the other.

Q. Aren't we concerned with having it set forth correctly? Whether it would make a difference of a great amount or not, is something else again. The loss might as well have been $4,000 instead of $400, because the treatment would be the same, wouldn't it?

A. The treatment would have been the same if it had been $4,000, but in regard to the previous question, I think I can make a statement. I regard a financial statement as having two aspects, one which is strictly quantitative and the other qualitative. The qualitative aspects of any financial statement could vary slightly within certain limitations without changing the qualitative aspect or the real meaning of that statement at all. I don't mean by that that any

accountant would have license to put something in a financial statement he knew was wrong or thought was wrong, or any kind of a manipulation like that. I merely mean to say that some slight differences in the quantities wouldn't necessarily change the real meaning or the real significance of that statement at all because in the final analysis the qualitative aspect of it, the true interpretation of it is more significant.

Q. Supposing, Mr. Smith, there was repetition of a similar item in 1942 after the rate base had been established. On this precedent it would mean $444 to the company, wouldn't it? Isn't that just what it would mean to the company?

A. Not entirely, because I assume there is an element of profit in that $444.

Q. Discounting that, it would mean a gross of $444 and a difference between cost and sale price. The cost has already been paid to the Colorado Interstate Gas Company for gas received, has it not? The company is already out the cost of that gas?

A. I believe that is correct. I don't recall that Colorado Interstate has ever contracted to reimburse you for bad debts.

Q. We are not aware of it, but assuming for the purpose of the argument it was a net amount of $444, the company was out, and if it should go out for industrial use or some other reason, I just wanted to know what the reason was.

(Vol. 67, pp. 9754-9758.)

* * * * *

Q. Mr. Smith, I would like to go back again for the moment to the capital stock tax adjustments for both the years 1938 and 1939. The detail of your explanation with respect to the year 1939 is found at Page 18. The year 1938 is found at Page 23 and the year 1939 at Page 18 of this Exhibit 202.

Now, in your computation made on Page 18, it appears that your adjustment is made on the basis of the capital stock account plus the surplus account as of December 31, 1938. Now, supposing the surplus account at that time had been $526,000, what would you have done?

A. In that event I would have proposed an allowance of $2,027, for capital stock tax.

Q. Even though, of course, the surplus account is property of the company?

A. I beg your pardon?

Q. The surplus account is really the property of the company in so far as it includes any excess of earnings which might be declared into dividends at the election of the company? In other words, supposing we have part of this $526,000 and it were earnings that were put into surplus and held there.

A. That surplus would be represented by assets which would—

Q. Part of that assets might be cash, might it not?

A. That's it. That is true. We couldn't tab the dollar on any of it.

Q. I didn't hear you.

A. I say, it might some of it be in cash, and you couldn't tab, t-a-b, the dollar on any of the surplus.

Q. So what is the basis for this computation?

A. The basis for my computation?

Q. Yes.

A. Because of the fact that a payment of Federal capital stock tax on a declared value which is in excess of the net worth of the company indicates a payment to avoid—that it is a payment of Federal capital stock tax to avoid payment of excess profits tax.

Q. Well, now, supposing the assets of this company on a sale and exchange basis on the open market were worth, irrespective of what rate base you may have in mind, were worth $2,226,000, and that all those assets were used in utility operations, but that would be their open market value.

A. That wouldn't affect my computation.

Q. It wouldn't affect your computation at all even though that was the market value of the assets devoted to the utility service?

A. That's right. I have related my computation to the investment of the stockholders in this case in the business.

Q. On the basis of the face of the capital stock account. Whether the investment were larger, you haven't inquired.

you have simply taken it on the basis of the face of the stock $1,501,000.

A. Well, a million, five hundred thousand dollars, that represents the investment of the stockholders in this company. I have disregarded the fact that $98,000 of the company's assets have been loaned back to the stockholder. I haven't treated that as—

Q. You haven't treated that as an asset?

A. Well, I have—it is on the asset side of the balance sheet and I haven't—

Q. It doesn't enter into your computation?

A. I haven't entered it into it. You see by one theory I could say that the investment of the stockholders in this company is the face value of the capital stock, $1,501,000 less the amount which the company had loaned back to the stockholder, or a net of about $1,400,000.

Q. And under what theory could you do that?

A. Just the fact.

Q. I mean—that is your theory.

A. I mean it is a fact.

Q. It is a fact, but it is still an asset, isn't it, part of the assets of this company? In other words, is the obligation of Public Service Company of Colorado to pay the $98,000 worth just about as much in reliability as the money itself in the till?

A. I wouldn't know unless I knew all about the Public Service Company. I don't know what their credit standing is.

Q. Let's assume that that is true. It would still be an asset of the company, whoever it was loaned to, wouldn't it?

A. Well, it may be recorded, and is recorded as an asset. As I say, I haven't departed from that treatment, and yet analyzing the transaction closely. I think it is obvious that the net investment of the stockholder is the amount of the contribution to capital less the loan back. I can't see it any other way.

Q. From which they are drawing six per cent interest?

A. That is true.

Q. I see. So that is the net investment on the theory that the $98,000 is gone.

A. No. It is just the fact that the stockholder still has only got $1,400,000 in the company.

Q. I see. All right, now, in 1939 you suspended all of the gas purchased for resale.

A. That is correct.

Q. $498,000, and you similarly suspended all of the gas purchased by this company for sale in the amount of $429,077.71 in 1938, and $449,927.09 for 1937. What is the purpose of that suspension?

A. The Colorado-Wyoming Gas Company purchased, I believe it is approximately 99 per cent of its gas, from the Colorado-Interstate Gas Company.

Q. Yes.

A. And I thought this suspension was proper as a matter of routine in accounting to earmark the cost of gas for the purpose of this exhibit because of the fact that the Colorado Interstate Gas Company is also a respondent in this same proceeding.

Q Well, now, of course, the amount of the purchase of gas by Colorado-Wyoming Gas Company from Colorado Interstate Gas Company is apparent in numerous other schedules and statements of numerous other exhibits, so that the amount is obvious at any time for the purpose of the Commission; so just to earmark it, what is the *prupose* of earmarking it—for instance, the purchase of gas in 1937?

A. Well, we made all of our suspensions for the years 1937, 1938 and 1939.

Q. I know, but why did you suspend that for 1937, Mr. Smith? That's what I'd like to know. What justifies that suspension? There has got to be, it seems to me, even under the accounting principles, there has got to be a reason for it.

A. I think I have stated my reasons simply to set it out, to earmark it.

Q. So that the Commission would know how much it was?

A. That is one factor, and perhaps another one is that it seemed to me that before a rate could be set for Colorado-Wyoming Gas Company it was necessary that a determination be made as to the cost of gas to Colorado-

Wyoming Gas Company from Colorado Interstate Gas Company.

Q. But that cost of gas is going to change from year to year as it always has changed from year to year and it is a variable amount and enters into the expense of the company to the extent of the expenditure, does it not? It doesn't affect the rate of return or the rate base, it is simply an allowable expense. You can't determine what any of these expenses are going to be just because of the gas cost in 1939. That doesn't give you any possible lead in the realm of accuracy as to what the bill for gas is going to be in 1941, does it?

A. That is true of any expense item.

Q. Yes.

A. They may vary.

Q. But you are trying to estimate, is that it—trying to estimate what the expenses for gas might be in 1941?

A. No, that is the farthest thing from my intentions.

Q. I thought it must be. I am just unable to understand why that was suspended here. Those were the amounts that were paid, were they not? There isn't any question about that.

A. That is correct.

Q. And they were paid pursuant to the contract between the companies and as far as 1937 is concerned, prior to the passage of the Natural Gas Act, were they not?

A. I believe those facts you state are correct. It is my understanding that these payments for purchased gas have been in accordance with the contract between the two companies, and it is my understanding that the Natural Gas Act was passed in June 1938.

Q. That's right. Now, with respect to seeking information, was the occasion for it and the same inquiry of course, extended to both the years 1938 and 1939, and you are assuming that in each of those years the payments were actually made and that they were made pursuant to a contract between the parties?

A. Yes, that is my understanding.

(Vol. 67, pp. 9773-9780.)

* * * * *

Statement B-7 (Ex. 202) is a computation by Commission witness SMITH, of "rate of return" of the Company for the years 1926 to 1939, inclusive, in accordance with Commission's Exhibits 199, 200, 201, 202, 203, 204 and 205. Statement B-7 is hereinafter abstracted under the subject title "Net Return of Company."

(Vol. 67, p. 9737.)

(f) *Entries 100 to 111* (Commission Ex. 202).

None of the foregoing numbered items, aggregating $16,860.52 (Ex. 202, Schedule B-10, p. 11), is deducted or considered in arriving at "Utility Income" for the year 1939, as computed by the witness Smith on line 8, Column 3, Statement B-7, Exhibit 202 (Vol. 67, p. 9790).

Entries 100 and 101, "Expense of Entertaining" $1,362.97, and "Donations" $293.50, were eliminated by Smith as improper expense items. Without admission of impropriety by the Company, these items were eliminated in Company Exhibits 242 and 245, and in "Net Return," Company Exhibit 248 (see Appendix) (Vol. 83, p. 12,442).

Entry 102, "Scout Reports—Eastern Colorado Oil Fields" $300, was eliminated for the assigned reason.

> "Copies of the reports received were sent to Mr. H. D. Hancock, 70 Pine Street, New York City, a director of the company. The cost of these reports is regarded as an improper charge against the ratepayers of the Colorado-Wyoming Gas Company for the reason that it appears that other companies in the Cities Service Company group received the use and benefit of such reports but were not assessed a part of the cost thereof."

(Ex. 202, p. 16.)

Company witness H. P. DAVIS testified on this item as follows:

> "* * * By this entry Mr. Smith proposes to exclude an item of $300.00 from operating expenses merely because he considers it an improper charge. It is quite possible Mr. Smith did not fully understand the nature and importance to us of the service for which this charge is

made. This service consists of a report rendered to us three times a week of activities and developments in oil and gas field operations in Colorado and southern Wyoming. The management considers this service a necessary and valuable one, as it enables them to keep abreast of any developments in the exploration for and discovery of gas and the potential effect which such activities might exert on the conduct of our own business. As this report covers only the contiguous area in which we operate, Mr. Smith's statement that other Cities Service groups are receiving the benefit of this report without cost to them has no support. The nearest Cities Service pipe line or gas company is some 500 miles or more from Denver and could have little or no interest in any gas discoveries in this area. We do furnish a copy of this report to Mr. Hancock at New York as stated by Mr. Smith but Mr. Hancock in 1939 was a director of this company and then and now a member of the engineering staff of our Advisory Service Company. This report is valuable only to Colorado-Wyoming Gas Company, the only operating unit in this area and does not benefit any distant related company."

(Vol. 83, pp. 12,425, 12,426.)

It has no value to Mr. Hancock in connection with any other properties (Vol. 84, p. 12,551.)

SMITH on cross-examination stated he had no evidence to support his elimination of item 102, except that:

"It was sent to Mr. Hancock and he serves a number of companies. If he serves all of those companies and gets any benefit from this, the benefit might have accrued to any other company in the group as well as this company."

which he called "*prima facie* evidence." (Vol. 67, p. 9747.)

Entry 103 is an elimination of "Delaware Corporation license tax" which Smith states is "a duplication of expense". (Ex. 202, p. 17.) With respect thereto, DAVIS testified:

"This Mr. Smith states is not an allowable operating

expense on the ground that a tax of approximately an equal amount is paid to the State of Colorado and is therefore a duplicate charge. The corporation is incorporated under the Delaware laws and the annual tax is a requirement to retain our charter. The tax paid to Colorado is a privilege tax imposed on foreign corporations. There is no duplication. * * *"

(Vol. 83, p. 12,427; Vol. 84, p. 12,563.)

Entry 104 is the elimination from 1939 expense and reclassification to "Miscellaneous Income Deductions" of the item of "Bad Debts," $444.26, as "loss from uncollectible accounts resulting from sale of gas during 1938 to International Metal Foundation, a direct industrial customer" (Ex. 202, p. 17).

Entries 105 and 110, "Rate Case Expenses," $14,079.16, and "Gas Used Incidental to Pipe Inspection," $202.50 (also rate case expense), are eliminations from 1939 expense. They are reclassified by the witness in "Deferred Debit Caption." The attention of the witness was directed, on cross-examination, to Commission's "Uniform System of Accounts—Natural Gas Companies B-A 797, Regulatory Commission Expense," paragraphs A and B. The Company in its entries conformed to proper accounting (Vol. 67, pp. 9790-9797). These items were not considered in arriving at "utility income," as computed by the witness (Ex. 202, Statement B-7, Column 3, p. 10) (Vol. 67, p. 9791).

Entries 106, 107 and 108 are reclassifications of over-accruals and under-accruals of tax items for the year 1939, as recomputed by the witness Smith (Ex. 202, pp. 17, 18).

Entry 109. The item of "Federal Capital Stock Tax" is reduced from payment as made in 1939 by the Company of $2,127.64 (Vol. 67, p. 9762) to $1,527, the "allowable tax" as computed by Smith (Ex. 202, pp. 18, 22, 23).

"The amount which the company pays for Federal capital stock tax is subject to its declared value of capital stock for capital stock purposes. This declared value is stated by the company at such an amount as will prevent its paying excess profit tax in case its taxable net income exceeds a certain percent—I believe it is 10% of the ad-

justed declared value for capital stock tax purposes. In other words, the only reason for paying Federal capital stock taxes in such an amount is to avoid payment of excess profit tax."

(Vol. 67, pp. 9762, 9763.)

In connection with this matter, H. P. DAVIS, in presenting Exhibit 242, testified as follows:

"* * * This formula seems both arbitrary and unfair. For example, had we set up the book value of our stock issue at say $1 per share, the Capital Stock Tax computed on Mr. Smith's formula would then amount to only $88, whereas if we had fixed a stated value of $60 per share the tax would amount to $3,038. The latter amount is greater than the amount actually paid and yet would apparently have been allowed by Mr. Smith under his prescribed formula had this been the book value instead of the $33.34 per share stated on the books of the company. The stock of this company is not traded in on the open market and accordingly we have no means of establishing a market price or value. We believe, however, that this stock could readily have commanded an actual market price of $50 per share or better at that time, which would produce a substantially greater capital stock tax. * * *"

(Vol. 83, pp. 12,426, 12,427.)

Upon cross-examination the witness, DAVIS stated that his criticism of the entry was that Mr. Smith ignores the requirements of the tax and sets up a different basis than the one on which the Company is required to pay. The Company's officers passed upon the declared value of the capital stock. Had the Company set up a book value for the stock of $1 per share, according to Mr. Smith's formula, the tax would be $88. If the Company had fixed the stated value at $60, the tax would amount to $3,038. The directors of the Company have the privilege of putting and stated value they wish on the stock. The Company declared a value on the basis, in 1939, at approximately $2,200,000. This figure results in avoiding the payment of any excess profit tax and more nearly reflects the book worth of the

plant than the stock issue would reflect; "a million and a half dollars doesn't represent the cost of our property by any means." The outstanding stock in 1939 was 50,000 shares, which represents the original investment of the stockholders in buying their stock. The plant had a book value of approximately $1,900,000. There are no outstanding bonds (Vol. 84, pp. 12,554-12,561).

Entry 111 is an adjustment and suspension in 1939 of $178.13 of the invoice for apportionment of the overhead expense for Petroleum Advisers, Inc. for December, 1939 (about 1% of the total), which was not recorded on the books of the Company until January, 1940, and in adjusting the 1938 and 1939 expense for similar items which were not recorded on the books until 1939, the witness stated that because of certain details received from Petroleum Advisers, Inc. there was a question as to whether or not certain officers in Petroleum Advisers, Inc. could be of any benefit to the Colorado-Wyoming Company, and in connection with this, testified as follows:

"Q. Well, you recommend: 'The Examiner recommends allowance of only that portion of the charges in question which the Commission finds reasonable and necessary in conducting gas utility operations of the Colorado-Wyoming Gas Comapny,' and then you state previously:

"It may be questioned whether or not it is equitable to apportion salaries of the following employees of Petroleum Advisers, Inc., who appear to be engaged primarily in activities benefiting member oil companies, against the rate payers of the Colorado-Wyoming Gas Company."

He further stated:

"I am making no determination here. This is a wide open proposition as far as I am concerned" (Vol. 67, pp. 9769, 9770).

(Vol. 67, pp. 9764-9772.)

The witness SMITH also testified that as a matter of policy all legal fees were suspended by him. This pro-

cedure was suggested by the superiors. He stated that the books of the Company show that payment was made for such services, and that Exhibits 202 and 202-A show "what I believe to be evidence as to the services that were rendered for 1938-1939" (Vol. 67, pp. 9781, 9782). He further testified that on page 6 of Exhibit 202, he raises the question of the reasonableness of the payment of $5000 annually as legal fees for a company the size of Colorado-Wyoming Company (Vol. 67, p. 9782). He testified it was his understanding that the $5000 payment for the year 1939 was not only as a retainer, but in payment for all services during the year, exclusive of Commission regulatory expense, and was in payment for all services rendered as shown in Exhibit 202-A (Vol. 67, pp. 9782-9786).

The witness *Smith* also suspended from the income account, Federal and Colorado State income taxes, and stated that these items were "suspended for further study and consideration by the Commission and its staff, for the reason that the income received by the respondent and which constituted the basis for assessment of its income taxes, may, as a result of this proceeding, be found to have been in excess of a fair return" (Ex. 202).

Commission Exhibit 204 (Appendix this Record).

Q. Mr. Smith, in connection with that Exhibit 204, "Balance Sheet and Supplemental Data," have you prepared a written statement explaining it in substance?

A. Yes, I have.

Q. Will you please read that statement into the record?

A. "This report consists of a balance sheet of Colorado-Wyoming Gas Company as of December 31, 1939, and seven supporting schedules.

"Statement A1 shows the balance sheet per company's books, reclassifications and adjustments of its items made by the Examiner, and the balance sheet as adjusted. The seven schedules comprise one that summarizes the Examiner's reclassification and adjustment entries, one that contains a reclassification entry, one that summarizes the

advance account of Public Service Company of Colorado, one that gives an analysis of 1939 rate case expenses, and three that support and explain other balance sheet items, namely, capital stock, contributions in aid of construction, and surplus.

"Schedule A 10, a summary of the Examiner's adjusting entries applying to the balance sheet, designates by number each of these entries, provides a brief description of each of them, and classifies the amount of each by balance sheet account through the device of a columnar distribution. The entries themselves with the exception of Entry No. 1, which is shown in Schedule A 11, are not given in this report but are to be found in other accounting reports on this company prepared for the purpose of this proceeding.

"The '100' series entries are shown in the report entitled 'Income Accounts and Supplemental Data including Examiner's Adjustments,' * * * "

Q. That is Exhibit 202 in this proceeding?
A. Yes.

"* * * the '200' series entries in the report entitled 'Gas Plant Accounts and Examiner's Adjustments,' * * *" Exhibit 199, I believe.

Q. Yes.
A. "* * * and the '400' series entries in the report entitled 'Annual and Accrued Depreciation of Gas Plant and Examiner's Adjustments.' "
Q. That is Exhibit 201?
A. Yes, sir.

"The debits and credits entered against balance sheet accounts in Columns 3 and 4 of Statement A 1 are the totals of columns of Schedule A 10, each of which columns represents a balance sheet account and contains all the debit or credit entries affecting the account that it represents.

"Schedule A 11 contains one entry designated as No. 1. Its purpose is to transfer to the 'Contributions in Aid of Construction' Account the amount of $2,982.14, which the

books of the company show to have been advanced for construction by International Metal Foundation. For further explanation of the transaction see the entry itself.

"Schedule A 12, which is a summary of the account reflecting advances made by this company to Public Service Company of Colorado, shows the principal transactions recorded in the account from September 1, 1931, the date on which Public Service Company of Colorado effectively became the owner of this company's capital stock, to December 31, 1939. The transactions are shown by years. It will be noted that no change in the balance of the account has taken place in the years 1938 and 1939. Interest of 6 per cent per annum is paid on the account.

"Schedule A 13 is an analysis of 1939 rate case expenses amounting to $14,281.66. These expenses are carried in the balance sheet as a deferred debit pending their disposition by the Commission. They were taken out of the company's income accounts by adjusting Entries Nos. 105 and 110 in the report entitled 'Income Accounts and Supplemental Data Including Examiner's Adjustments.'"

Q. That is Exhibit No. 202?

A. That is right. Most of the items described on Schedule A13 were charged on the company's books to Account 991, Regulatory Commission Expenses.

"Schedule A 14 provides information relative to the company's capital stock and gives, among other things, the number of shares authorized, issued, and outstanding, and the holders of record as of December 31, 1939.

"The original subscription for the company's capital stock, made on December 1, 1925, was for ten shares at $100 a share. The offset to the capital stock account in the entry which recorded this subscription was 'Subscribers to Capital Stock.' On April 30, 1932, the $1,000 debit balance in the 'Subscribers to Capital Stock' account was transferred to the account of Public Service Company of Colorado (cf. Schedule A 12).

"Incident to the transfer of the original Wellington-Fort Collins line to this company and the execution of a contract to sell gas to the Fort Collins Producing Corporation, this

company issued 4,990 shares of common stock on December 30, 1925, to the nominee of H. O. Caster, who was evidently an intermediary for Cities Service Company. Upon its issuance no value was assigned to this stock in the capital stock account.

"From December 30, 1925, until December 21, 1931, the capitalization of the Colorado-Wyoming Gas Company remained at 5,000 shares of no par value capital stock, with a total recorded value of $1,000. On December 21, 1931, a stock dividend of $1,500,000 at the rate of $33.33-1/3 per share was paid through the issuance of 45,000 additional shares. This increased the total capitalization of the corporation to 50,000 no par value shares and the total recorded value of capital stock to $1,501,000. Since December 21, 1931 this has not changed.

"Schedule A 15 is a summary of the 'Contributions in Aid of Construction' account, as adjusted, and shows the names of the seven contributors whose contributions make up the balance in this account as at the end of each of the eleven years, 1929 to 1939, inclusive.

"Schedule A 16 shows twenty-three Examiner's adjustments of the surplus account that increase the balance of that account, as of December 31, 1939, from $23,076.48 to $27,334.72. Although the net effect of the twenty-three entries is small, the debits and credits aggregate $546,668.61 and $550,926.85, respectively. These entries are the same entries that are shown in Column 17 of Schedule A 10. They are reproduced in Schedule A 16 so that they may be referred to more conveniently and to provide a reconciliation of the balance of the surplus account per books, with the balances of that account as adjusted by the Examiner."

Q. Mr. Smith, I note on the title page of this exhibit appears the approval of Mr. Harold Tomlin, Examiner in charge of regional office, and W. E. Baker, Chief Accountant. Those gentlemen are both connected with the Federal Power Commission in the capacities as therein stated?

A. They are.

Q. Is there any additional statement that you wish to make or further explanation which you wish to give for the

record at this time relative to this exhibit, Mr. Smith?

A. No, I believe not. I believe the supporting schedules show pretty well what is in the balance sheet, together with the other exhibits.

(Vol. 68, pp. 9825-9831.)

Commission Exhibit 205 (Appendix this Record).

(Exhibit 205, Witness Smith, marked for identification.)

By Mr. Lange:

Q. Mr. Smith, have you also prepared a written statement in connection with that exhibit, which written statement gives a summary description of it?

A. Yes, I have.

Q. Will you please read that into the record?

A. "The principal purposes of this exhibit are as follows:

"(1) To present a comparison of operations of Colorado-Wyoming Gas Company for the nine months ended September 30, 1940, and 1939.

"(2) To present the expenses incurred by Colorado-Wyoming Gas Company in connection with this rate case up to September 30, 1940.

"(3) To present the changes in the investment of Colorado-Wyoming Gas Company in gas plant in service for the nine months ended September 30, 1940.

"The schedules forming this exhibit and which present the detail supporting the purposes, as explained in the previous paragraph, are as follows:

"Schedule No. 1 Statement of Income and Surplus Accounts as Reclassified for the Nine Months Ended September 30, 1940, and 1939, and Comparison

"Schedule No. 2 Statement of Operation, General and Maintenance Expenses, as Reclassified, for the Nine Months Ended September 30, 1940, and 1939, and Comparison

"Schedule No. 3 Balance Sheet, as Reclassified, September 30, 1940.

"Schedule No. 4 Deferred Rate Case Expenses September 30, 1940

"Schedule No. 5 Gas Plant in Service September 30, 1940

"All of the figures used in this exhibit are those shown by the books at the dates stated in the schedules after giving effect to rate case expenses removed from operating expenses and reclassified as deferred rate case expenses.

"Results of Operation

"Net utility income, as shown in Schedule No. 1, decreased $26,649.56 for the nine months ended September 30, 1940, as compared with the nine months ended September 30, 1939. The decrease is the result of changes in the following accounts:

	Increase (Decrease) 1940 over 1939
Operating revenues	($3,318.74)
Operating revenue deductions	
Gas purchased for resale	$17,501.64
Operation and general	(387.37)
Maintenance	4,037.72
Depreciation	—
Taxes, general and income	2,178.83
Total	$23,330.82
Net utility income	($26,649.56)

"The dollar amount of operating revenues decreased $3,318.74 while the average price per Mcf. of gas sold increased 1.69 cents. The ratio of domestic gas sold to total sales was higher in 1940 than in 1939.

"The increase in cost of gas purchased for resale is due principally to an increase of 2½ cents per Mcf. in the rate for domestic gas, effective September 26, 1939.

"The fluctuations accounting for the net increase in operation, general and maintenance expenses of $3,650.35 are detailed in Schedule No. 2. Transmission lines maintenance which increased $4,553.46 is the most important fluctuation and represents consistently larger amounts expended *montjly* for reconditioning work. Superintendence distributed to compressing and measuring station operations during 1939 was distributed as transmission lines operation in 1940 which accounts for the variation in these accounts.

"Financial

"Schedule No. 3, the balance sheet at September 30, 1940, reflects the balances as shown by the books with the exception that rate case expenses are reclassified in accordance with the footnote on that schedule.

"Changes in gas plant service for the nine months ended September 30, 1940, are summarized by accounts in Schedule No. 5 and classified between additions and retirements.

"The principal addition to plant is that represented by work order No. 154A which covers the installation new of a compressor station and equipment at a location designated as Arapahoe. This work order was closed to the following plant accounts.

"Land owned in fee	$ 400.00
Structures and Improvements	1,140.52
Pumping and Regulating Equipment	30,678.70
Total	$32,219.22"

Q. These matters contained in Exhibit 205 were taken by you or those working under your supervision from the books and records of Colorado-Wyoming Gas Company?

A. Yes, they were.

Mr. Lange: I believe that is all for the present.

Q. Do you have any further statement or further explanation to make with reference to this exhibit at this time?

A. The exhibit contains book figures unadjusted for the periods indicated with the one exception that the rate case expenses have been reclassified to a deferred caption on the balance sheet for the same reasons that they were for 1939, and the schedule given on Page 4 of the exhibit shows the

accumulated total of the deferred rate case expenses to September 30, 1940, which have been taken out of expenses for the years 1939 and 1940, placed in a deferred caption, pending the disposition by the Commission.

(Vol. 68, pp. 9908-9912.)

* * * * *

Commission Exhibit 247 (Appendix this Record).

(g) *Commission 1941 Projection*

(Commission Ex. 247).

FULTON W. COPP, one of the engineers for the Commission, was first employed by the Commission in April, 1939, and testified he was assigned to the Colorado-Wyoming Company case on September 18, 1939, and worked on his various studies until May, 1940, and "perhaps a month the latter part of 1940" (Vol. 66, pp. 9606-9610).

* * * * *

A. "Exhibit No. 247 presents estimated volume of gas sales, and estimated operating expenses (excluding purchased gas expense, regulatory commission expenses, depreciation expense, and income taxes) of Colorado-Wyoming Gas Company for the year 1941. The exhibit is composed of four schedules:

"Schedule No. 1—Estimated Volume of Gas Sales, 1941

"Schedule No. 2—Estimated Volume of Gas Purchased, 1941

"Schedule No. 3—Estimated Operating Expenses, 1941 (Excluding Purchased Gas Expense and Regulatory Commission Expenses)

"Schedule No. 4—Estimated Taxes, 1941 (Excluding Income Taxes)

"The volume of gas sales to each customer, as shown in Schedule No. 1, is based on an analysis of 1941 market conditions, after interviews with all of the principal customers, and a study of the records of the company for recent years.

No increase has been estimated for potential sales to new industrial customers, nor do the estimates reflect possible future increases resulting from National Defense activities.

"Schedule No. 2 shows estimated volumes of gas to be purchased in 1941 from the company's two sources of supply, Kir-well Oil Company and Colorado Interstate Gas Company.

"Schedule No. 3 shows estimated operating expenses, consisting of transmission and distribution operation and maintenance, sales promotion, and administrative and general expenses. These estimates are based on an analysis of the experience of the company in recent years, and consideration of factors which affect these expenses. No estimates are included for purchased gas expense, and regulatory commission expenses. The account descriptions shown in Schedule No. 3 correspond to those in the Federal Power Commission's Uniform System of Accounts for Natural Gas Companies.

"Estimated taxes, shown in Schedule No. 4, have been calculated on the basis of existing tax rates. No estimates are included for Colorado income taxes, nor for Federal income, excess profits, declared value—excess profits, and defense taxes."

(Vol. 84, pp. 12612-12613.)

* * * * *

Q. As I understand, Mr. Copp, you prepared this estimate on the basis of study of a company's operations during the past years?

A. That is correct.

Q. And in the light of that, you made these estimates as you have stated in your testimony.

A. That is correct.

Mr. McCreery: What is the period of time you have been in Denver, Mr. Copp?

The Witness: Since April 1939.

Recross Examination.

By Mr. McCreery:

Q. When did you start work on this exhibit?

A. September 1939.

Q. So that your experience and any familiarity you have with the company begins then, aside from what you would read in their books or somebody would tell you?

A. That is correct.

Redirect Examination.

By Mr. Lange:

Q. When you made your inquiries, you made them—that is, you directed your inquiries to the company officials?

A. That is right.

Q. And when you directed inquiries with reference to the requirements of these several customers of the company, you personally interviewed someone in each of those companies, didn't you?

A. That is correct, with the exceptions I have stated.

Q. In estimating these expenses set forth in Schedule 3, with whom did you take up any matters concerning the company? That is, with what officials or employes of this company?

A. The question concerning the operation of the company, that is, in the field, were taken up with Mr. Thackrey.

Q. And what is his position with the Colorado-Wyoming Gas Company?

A. He is the General Superintendent; and with regard to administrative and general expenses, that was taken up with Mr. Davis.

Q. He is the Secretary of the company?

A. I understand that he is Secretary of the company.

Recross Examination.

By Mr. McCreery:

Q. What did you do—what did you take up with him?

A. Oh, I discussed these various things with him, what these accounts consisted of in the past.

Q. You weren't seeking their ideas as to what they should be at all?

A. No, I asked him what these specific items were. Some were taken from vouchers, of course.

Q. You weren't seeking counsel or advice or anything of that kind from either of them?

A. Oh, no. Of course, I had to ask him what he intended to do at the Arapahoe station and things like that.

Mr. Lange: You were seeking what you figured was the necessary information upon which to proceed with this exhibit, is that it?

The Witness: That is true.

(Vol. 84, pp. 12664-12666.)

* * * * *

The witness identified Exhibit 247 prepared by him, which presents the estimated volume of gas sales and estimated operating expenses (excluding purchased gas expense, regulatory Commission expense, depreciation expense, and income taxes) of Colorado-Wyoming Company for the year 1941. The exhibit is composed of four schedules: Schedule No. 1, estimated volume of gas sales; Schedule No. 2, estimated volume of gas purchased; Schedule No. 3, estimated operating expenses (excluding purchased gas expense and regulatory Commission expense); and Schedule No. 4, estimated taxes (excluding income taxes). He stated that the volume of gas sales to each customer as shown in Schedule No. 1 is based on an analysis by him of the 1941 market conditions, after interviews with most of the principal customers and a study of the records of the Company for recent years. Schedule No. 2 shows the estimated volumes of gas to be purchased in 1941, from the Kir-Well Oil Company and the Colorado Interstate Company. Schedule No. 3 shows estimated operating expenses, consisting of transmission and distribution operation and maintenance, sales promotion and administrative and general expenses. These estimates are based on an analysis by the witness of the experience of the Company in recent years. The account descriptions shown in Schedule No. 3 correspond with those in the Federal Power Commission's Uniform System of Accounts for Natural Gas Companies.

Estimated taxes shown in Schedule No. 4 have been calculated on the basis of existing tax rates. No estimates are included for Colorado income taxes, nor for Federal income, excess profits, declared value—excess profits and defense taxes.

(Vol. 83, pp. 12,612, 12,613.)

Upon cross-examination the witness testified that in May, 1940, he interviewed direct industrial customers in connection with his study of the estimated use of gas in 1941 (except Colorado Portland Cement Company).

For the Adolph Coors Company he arrived at an estimated use of 14,000 M. c. f. for 1941, by taking the average of the 1939 and 1940 actual consumption of that company. The officials of the Coors Company (and of The Golden Fire Brick Company) indicated that their business was more or less stabilized and would go along about as it has in past years (Vol. 84, pp. 12,614, 12,615).

The Golden Fire Brick Company estimate was determined somewhat upon the necessity for building material in the future. The company manufactures a general line of building brick, including special fire brick. The only change that the officials of this company would anticipate in their requirements, would be if "building picked up considerably in this area." The estimate for this company also is based upon the average actual use of gas in 1939 and 1940 (Vol. 84, pp. 12,615, 12,616).

The estimate for Kuner-Empson Company is not exactly the average basis of use for 1939 and 1940. The estimated volume for 1941 is somewhat more than that for either 1939 or 1940 and was arrived at by the trend of the last few years. The officials of the company indicated only that their business had increased in the last few years and as a result their use of gas had increased. The trend was taken from the use of gas for the years 1936 to 1940 and, based upon these figures, an estimate of 40,000 M.c.f. is given for 1941 (Vol. 84, pp. 12,616, 12,617).

The witness was then questioned in regard to the volume estimated for the use of the Great Western Sugar Company in its Johnstown plant. He testified that the operation of that plant was dependent upon the sugar beet crop and that the estimate taken was the same figure as the actual consumption in 1940. He said that the 1941 consumption would not be affected by the 1941 beet crop, as the Johnstown plant was principally a molasses plant and its operations in any year were determined by the residue material or molasses accumulated in other plants during the preceding year. A reduction in the beet acreage for 1941

would have an effect upon the operations of the plant in 1942. The witness stated that he did not have a comparison of the beet crop in the Great Western Sugar Company areas for the years 1939 and 1940 (Vol. 84, pp. 12,617, 12,618).

The 1941 estimate of 45,000 M.c.f. for Denver Pressed Brick Company is the amount used in 1939, which is more than that used in 1940. This figure was taken for the reason that the President of the company stated that it had been very active in developing a new form of building brick and that it was believed that the use of this brick would be increased in Denver and that, based upon that fact, the 1939 estimate was taken instead of the average of two years, which average would have given the use of approximately 1,000 M.c.f. less than the figure taken (Vol. 84, pp. 12,619, 12,620).

There was no consultation with Producers. Canning Company of Fort Collins. That company used 761 M.c.f. in 1940, and 700 M.c.f. was used as an estimate for 1941 (Vol. 84, p. 12,620).

The Fort Collins Producing Corporation used approximately 5,800 M.c.f. in both 1939 and 1940 The estimate by the witness for 1941, was placed at 6,000 M.c.f., by reason of "the increased activity in the last quarter of 1940." This company was not interviewed. It is a subsidiary of the Continental Oil Company that uses gas for oil field purposes in the Wellington Field, in the production of oil (Vol. 84, pp. 12,620, 12,621).

The witness testified that the Portland Cement Company at Laporte, Colorado, used 864,390 M.c.f. in 1939, and 776,265 M.c.f. in 1940. The average for those two years would be approximately 820,000 M.c.f. at a 14.65-pound pressure base. The estimate of consumption made for that company in 1941 was 968,000 M.c.f. This estimate was increased over the average of the two preceding years for the reason that the Portland Cement Company, in the years 1937 to 1940, produced an average of 441,000 barrels of cement per year; that the company now has an order for 440,000 barrels of cement from the Caddoa Dam now being built on the Arkansas River; one-third of that order (147,000 barrels), is scheduled for delivery in 1941. The Colorado Portland Cement Company also has a plant at Portland,

Colorado. During the four-year period from 1937 to 1940, the Laporte plant produced 42% of the production of the two plants combined. The total average production of both plants for the same four-year period was 1,060,000 barrels of cement. The witness continued:

"I have added one-third of the Caddoa Dam order, or 147,000 barrels. I have taken 42% of that which is the amount of cement that has been produced by the Boettcher plant, and I arrive at a figure of 506,940 barrels for the Boettcher plant.

"Now, the average M.c.f. used at the Boettcher plant to produce a barrel of cement is 1.73. To go back a little bit, I have added 10% to the 506,940 barrels which is estimated as the production for the Boettcher plant for 1941. * * * That is based on pending construction in this area, principally the Big Thompson project which is now driving tunnel from Grand Lake to the Big Thompson River and which is going to use a considerable amount of cement."

The witness stated that the 10% estimate was his estimate, and that there was very little known about when the Big Thompson River construction would start or how much work would be done in 1941. The witness further stated that if the Cement Company produced all of the cement for the Caddoa Dam at the Portland, Colorado, plant, then it would be necessary that other orders be produced at the Boettcher plant. The witness gave no testimony as to whether there were any large or unusual orders in 1939 or 1940 (Vol. 84, pp. 12,623-12,626).

The witness was then questioned as to his knowledge of periods when the Colorado Portland Cement Company had been interrupted or shut off in their service of gas due to peak demands of resale customers of the Colorado-Wyoming Company, and he answered that he was familiar with the fact that in each of the years 1938, 1939 and 1940, there had been increased curtailment of the supply of natural gas to the Colorado Portland Cement Company at Portland, Colorado. He stated, however, that the Colorado Portland Cement Company, under ordinary conditions, operates from April 1st to approximately December 1st of each year, during which times he stated the peak domestic demands do

not cause plant shut-off. He stated that the Cement Company was equipped to operate two kilns throughout the summer, and could make this production easily in the summer time by the operation of the two kilns. He stated that in the past the Cement Company had been operated in such a manner that their gas supply had to be curtailed or shut off in each of the last three years. He stated that he was not advised whether the Company would change their operations and did not "know how they are going to operate that plant, but if they need cement they will produce it to the best of their ability." These matters were not considered in making the estimate (Vol. 84, pp. 12,628-12,630).

The Board of Water Commissioners of Denver used 7,773 M.c.f. in 1940. The average for 1939 and 1940 was approximately 7,700 M.c.f. In Exhibit 247 the use by this Board in 1941 is estimated by the witness at 8,000 M.c.f. This is computed on a normal degree-day year which would give 8,013 M.c.f. (Note: The Water Board is an industrial, not a domestic customer.) (Vol. 84, pp. 12,630, 12,631).

Fort Logan consumed 6,933 M.c.f. in 1940. The estimate for 1941 was raised to 8,000 M.c.f. on the theory that the Fort would be more fully occupied.

Fort Warren used 16,318 M.c.f. in 1940, which was increased to 18,000 M.c.f. on the estimate for 1941. The witness stated that he knew gas is not used for space heating at Fort Warren. The increase was based on an estimated increased use of gas in the permanent buildings at Fort Warren (Vol. 84, p. 12,632).

The amount estimated for use by the Federal Prison Farm of 2,000 M.c.f. in 1941 was based upon the actual use for that part of 1940, during which this institution used gas (Vol. 84, p. 12,633).

The witness was then questioned in regard to the estimated sales during 1941 to the distribution companies. He stated that the Greeley Gas and Fuel Company was interviewed in May of 1940, and was informed that there was domestic consumption in 1939 of approximately 129,000 M.c.f., and in 1940, 146,000 M.c.f. The estimate for 1941 is 160,000 M.c.f., which was arrived at on a trend basis. The trend for the years 1934 to 1939, inclusive, would give

155,000 M.c.f. but the trend for the years 1939 and 1940 would give 164,000 M.c.f. The average for the years 1939 and 1940 would be approximately 138,000 M.c.f. These figures include space heating, which had an average use in 1939 and 1940 of approximately 77,000 M.c.f. per year (Vol. 84, pp. 12,633-12,638).

The witness stated that considerable work had been done on degree days. He did not know much about wind velocities. Neither entered into his calculations with respect to space heating, although he admitted they would have an effect on such calculations (Vol. 84, pp. 12,633-12,643).

The witness was then questioned in regard to his 1941 estimate for Cheyenne. He testified that domestic and space heating gas in Cheyenne, from the inception of space heating in 1934, had been considered, and in response to inquiry, stated:

> "Domestic gas sold by Colorado-Wyoming Gas Company to the Cheyenne Light, Fuel and Power Company in 1934 was 235,945 M.c.f.; in 1935, 285,282 M.c.f.; 1936, 312,277 M.c.f.; 1937, 344,763 M.c.f.; 1938, 343,127 M.c.f.; 1939, 369,116 M.c.f.; in 1940, 409,602 M.c.f."

The witness further testified that he estimated the use in Cheyenne for 1941 would be 425,000 M.c.f. for domestic use. He took one-half of the increase for 1940 over 1939, which would give 429,000 M.c.f. and reduced that to 425,000 M.c.f. He declared it was found that the Cheyenne load was increasing and in 1941 would make greater demands upon the capacity of the Fort Collins-Cheyenne line. This would have a bearing on industrial sales in the area between Fort Collins and Cheyenne (Vol. 84, pp. 12,644, 12,643).

Then followed further testimony as to the shut-offs, known to the witness, at the Colorado Portland Cement Company's plant at Laporte, Colorado, with reference to which the witness commented, "Well, the cement company can operate at a much greater capacity in the summer when this won't have so much effect" (Vol. 84, pp. 12,644, 12,645).

The witness stated that he did not give any consideration to Mr. Hancock's studies or the conclusions of the Company engineers (Vol. 84, pp. 12,645-12,647).

As to "*Taxes Excluding Income Taxes for the Year 1941*" (Schedule No. 4), the witness testified that his projection assumed that the assessment and the rate in 1941 would be precisely the same as 1940. He did not follow any trends of increased taxation in the past years in arriving at his estimate. The Arapahoe Compressor Station was added and included in his estimate at an assessed valuation of $20,000, to which the 1940 rate was applied (Vol. 84, pp. 12,648-12,650).

The witness stated that the item, "*Other General Office Salaries,*" $4,900, (Schedule No. 3, Line 22), was arrived at by taking the 1940 expenditures and adding approximately $2,000 (an increase of $100 over the Company's projection), which difference was due to the necessity of employing an additional man to look after the plant ledger. Witness stated, "I understand his salary is charged to regulatory Commission expense, but he will be transferred to the regular office pay roll" (Vol. 84, pp. 12,651, 12,652).

In connection with "*Transmission and Distribution Expense-Operation*" (Schedule No. 3, Lines 1 to 9, 17 to 19), the witness testified that he had arrived at the figure $39,700 without considering the Company's estimate of $43,770. The Company's estimate did not interest the witness. He stated that the 1941 estimate for the operation of pumping stations is based upon the 1940 figure of $14,435, to which was added $1,680, "which consists of one-third of the time of three men required to operate the new Arapahoe station." He stated that Mr. Thackrey, Company engineer, had given him the information as to how the Arapahoe station was to be operated (Vol. 84, pp. 12,652-12,655).

The witness testified that as to his estimate for 1941 of the "management and supervision fees:"

"A. Management and supervision fees as estimated for 1941 are based upon the 1940 actual. The total per books for account number 794-1 is $3,618.90 for 1940 but included in that figure are 13 months. The thirteenth month is an estimate for December of 1940. Actually there is a figure of $538.91 that was made in January 1940 that is applicable to December 1939 so we have subtracted that, but left in the estimate for December, 1940.

"Q. When was this estimate made?

"A. December, 1940. This is a company estimate, not mine.

"Q. I know, but your figures were made long before that.

"A. Not this particular account here.

"Q. No, this one was one made within the last 60 days.

"A. Oh, yes. Subtracting the actual payment applicable to December of 1939 leaves a balance of $3,080.05, and now that is added to account 794-2 of $58.92 which I believe is direct expenses. That gives a total of $3,138.97. That has been rounded off to $3,200.00.

"Q. That is the way you arrived at that?

"A. That is correct."

(Vol. 84, pp. 12,655, 12,656).

The witness testified that, throughout the exhibit, the adjustments made by Mr. Smith in Exhibit No. 205 were used (Vol. 84, p. 12,656).

In connection with the "*salaries of officers,*" the witness testified that the estimate of $7,800 for 1941 was a small amount above the actual for 1940. The actual in 1939 was $7,300. He stated that he had not accepted the Company's proposed increase of salaries of certain of its officers for 1941, but had arrived at a different figure (Vol. 84, pp. 12,656-12,658).

With respect to the figure of $8,500 in Line 15, Schedule No. 3, Exhibit 247, "*Maintenance of Transmission Mains,*" the witness testified that his estimate of 1941 maintenance was on the basis of a study of the Company's operation during the past years; that he had been in Denver since April, 1939, and had started work on Exhibit 247 in September of 1939, and that his experience and familiarity with the Company began at that time (Vol. 84, pp. 12,664-12,666).

His computation he explained:

"A. My estimate for 1941 for the account maintenance of mains, labor, and that account also includes supplies and expenses, consists of ordinary maintenance, $1,000; moving of lines, $1,000 and extraordinary maintenance, $6,500, making a total of $8,500.

"Q. Just in round figures?

"A. That is correct.

• • • • •

"Q. The same thing is true, I suppose, of Line 13, maintenance of pumping station equipment?

"A. That is made up of two items: pumping station equipment, labor and maintenance of pumping station equipment, supplies and expenses.

"Q. Which is lower than the company's estimate, or higher?

"A. I don't recall. I don't know what the company's estimate is. For the item maintenance of pumping station equipment, labor, the estimate is $1650 and added to that is the estimate for supplies and expenses of $600, giving a total of $2,250.

"Q. That is based on an examination of the operation and so forth on your part?

"A. That is based on the amount of maintenance that has been done in the past, principally in 1940. As equipment grows older it naturally requires more maintenance. The labor costs in this maintenance item in 1940 was approximately $1 per horsepower or $1345.68. I have added to that $300 or 50 cents a horsepower for the Arapahoe station. It often is necessary to have maintenance work on engines when they are brand new.

"Q. To get them adjusted?

"A. That is correct. So I have allowed $300 in there. That makes a total of $1345.68 for supplies and expenses for that same account. For that same account I have taken a four-year average from 1937 through 1940 which is $385, and I have rounded it off to $500 and then added an additional $100 for the Arapahoe station, making a total of $600.

"*Mr. Lange:* Mr. Copp, going back to Line 15, maintenance of transmission mains, that $8500 item which includes the $6500 special item that you mention, that is not just a round number, is it? Have you got a breakdown for that?

• • • • •

"*The Witness:* All right, sir. Mr. Thackrey furnished me with information regarding sections of the various

lines which he regarded should be reconditioned within the next three years. That period included 1940. He estimated that a total of 1300 feet of 10-inch line would have to be reconditioned; 8,800 feet of 8-inch main line; 10,500 feet of 6-inch main line; 1,100 feet of the Brighton branch; 6,700 feet of the Greeley branch, and 13,700 feet of the Johnstown branch.

"*By Mr. McCreery:*

"Q. Now, what is the total cost on that?

"A. I haven't computed it that way.

"Q. Do you have the cost per foot of that?

"A. Yes. The cost per foot is exactly the same as Mr. Thrackrey gave me. For the 10-inch pipe, 90 cents; 8-inch, 78 cents; for 6-inch, 67 cents; 4-inch, 55 cents; 3-inch, 48 cents; 2-inch, 43 cents. Those are the costs that have been used throughout.

"Q. That was the extraordinary maintenance proposed for 1940 to 1942?

"A. For that three-year period, yes.

"Q. Yes, and you will recall that in dollars it was $22,276?

"A. Yes, sir.

"Q. Now, then, you deduct from that the work done in 1940, $5,706?

"A. That is correct.

"Q. Well, then, what do you do next? Deduct another item?

"A. I deducted 5500 feet of the 6-inch line of the Greeley, branch.

"Q. Which cost $3685?

"A. That is correct.

"Q. I mean, you wanted to defer that?

"A. Yes, to a later period.

"Q. You didn't want to do that in 1941?

"A. That is correct.

"Q. I see. Why?

"A. Because there is only one inspection hole that is near that section. That 5500 feet is beyond the furthest inspection on the Greeley branch and the maximum pit in that inspection was 45 mil. compared with a wall thickness of 250 mil.

"Q. But you don't know anything about this particular pipe that they had in mind that needs reconditioning?

"A. I understand that it is east of this inspection, practically at the end of the Greeley line.

"Q. Over in that irrigated area where there is a good deal of underflow?

"A. I don't remember whether it is irrigated or not. It was not on a public highway.

"Q. You remember that it is an irrigated country right there before you come into Greeley?

"A. I remember that it may have been cultivated. I don't know whether it was irrigated at that particular point or not.

"Q. That was $3685, so you subtracted that, too?

"A. Yes.

"Q. That left $12,885?

"A. That is correct.

"Q. What else did you do?

"A. Then I assumed that half of that amount of work would be done in 1941 which is $6442 and that has been rounded off to $6500.

"Q. So that is how you arrived at the $6500 figure?

"A. That is right."

(Vol. 84, pp. 12,658-12,663.)

The witness stated on redirect examination that he had directed inquiries as to the expenses of the Company, shown in Schedule No. 3, Exhibit 247, to officials and employees of the Company, and questions concerning the operation of the Company were taken up with Mr. Thackrey, the General Superintendent, and matters relative to administrative and general expenses were discussed with Mr. Davis, the Secretary of the Company. In the discussions with both of these men, the witness was not seeking advice as to the method of operating the Company, but inquired as to specific items (Vol. 84, p. 12,666).

(h) *Summarized Comparison of Estimates of 1941 Company Operations, by Company and by Commission.*

1. *All Sales, in M. c. f.*

	1. Hancock Contract Pressure Base)	2. Hancock (Reconciliation) (14.65 Pounds)	3. Copp (14.65 Pounds)
Domestic	(Exh. 115+245)		(Ex. 200)
Cheyenne L. F. & P. Co.	494,200	414,930	425,000
Public Service Co.	801,000	691,103	750,000
Greeley G. & F. Co.	179,800	155,131	160,000
Highway Gas Co.	7,200	6,276	7,000
Sub Total	1,482,200	1,267,440	1,342,000
Industrial (Resale)			
Cheyenne L. F. & P. Co.	55,000	46,178	45,000
Public Service Co.	352,000	303,706	233,000
Greeley G. & F. Co.	17,800	15,358	17,000
Sub Total	424,800	365,242	295,000
Public Authorities			
Ft. Warren (U. S.)	20,300	17,044	18,000
Ft. Logan (U. S.)	8,800	7,593	8,000
Prison Farm (U. S.)	3,000	2,523	2,000
Denver Water Board	9,500	8,034	8,000
Sub Total	42,600	35,194	34,000
Direct Industrials			
Golden Fire Brick Co.	54,000	46,073	48,000
Denver Pressed Brick Co.	54,000	46,073	45,000
Great Western Sugar Co.	236,400	207,205	220,000
Kuner-Empson Co.	42,400	36,960	40,000
Adolph Coors Co.	18,000	15,052	14,000
Ft. Collins Prod. Corp.	5,000	4,256	6,000
Prod. Canning Co.	800	681	700
Colo. Portland Cement Co.	1,000,000	868,260	968,000
Sub Total	1,452,200	1,224,560	1,341,700
TOTAL M. c. f.	3,359,200	2,892,436	3,014,700

2. *Expense of Operation* (Excluding Purchased Gas and Regulatory Commission Expense, and Income Taxes, Federal and State.)

	Hancock	Copp
Transmission and Distribution Operation. (Vol. 84, pp. 12,652-12,653)	$43,770	$39,708
Transmission and Distribution Maintenance	16,000	13,770
Administrative and General	33,335	30,150
TOTAL	$93,105	$83,628

(See, Ex. 115, 242 (Statements Nos. 2 and 3), 245 (Statement No. 4, "Revised Exhibit No. 115,") and 247; also testimony of Hancock, Willard, Davis and Copp.)

(i) *Regulatory Commission Expense* (Ex. 242 and Supp.).

Regulatory Commission Expense for the years 1939 and 1940, actual, and the year 1941, projected, is:

1939	$14,079
1940	32,998
1941	40,379.20

(Ex. 242, Statement No. 2, Statement No. 3, and Supplement.)

(See cross examination of Davis under "68", *supra.*)

Of the 1941 total of $40,379.20, only $27,600 thereof is included in projected expense for that year as reflected in 5-year amortization thereof, in Exhibits 242, 245 and 248.

(2) Revenue Expense and Income—Allocation to "Sales for Resale" (Ex. 117, 245.)

Applying the principles and methods of allocation applicable to the operations of Colorado-Wyoming Company, as hereinbefore abstracted under the subject title "The Method of Allocation Applicable in this Case," to "Sales for Resale," the "Net to Reserves and Return" derived from such sales was determined.

The witness Hancock testified with respect to Exhibit

117, Statement No. 2, entitled "Earnings Statement—Total Sales for Resale—1939-1945":

"• • • Exhibit No. 117 shows the earnings which reasonably may be expected to accrue to the company during the period ending with the year 1945, from all 'sales for resale.'

"The total figures shown on Exhibit No. 115 covering volume of sales in Mcf., cost of purchased gas, revenue from sales, operation and maintenance expense, and general and Federal income taxes have been apportioned between such sales for resale and all other sales. Such allocation has been projected for each year of the period ending in 1945."

(Vol. 27, pp. 3799, 3800.)

Such allocated revenue expense and earnings are summarized for the years 1939, 1940 and 1941, as follows:

Gas Sales M. c. f.	1939	1940	1941
Sales for Resale	1,706,323	1,838,965	1,907,000
Domestic	1,283,316	1,414,000	1,482,200
Industrial	423,007	424,965	424,800
Gross Earnings			
Sales for Resale	$ 579,578	$ 629,770	$ 655,116
Domestic	488,765	538,480	563,376
Industrial	90,813	91,290	91,240
Operation and Maintenance			
Purchased Gas	$ 330,410	$ 385,180	$ 401,830
Transmission Operation	29,310	30,730	38,320
Transmission Maintenance	3,770	8,930	13,930
General Taxes	29,488	31,639	33,007
Regulatory Commission Expense	14,079.16	14,500	14,000
General Expense—Other	28,907.84	30,450	35,085
Federal Income Tax	12,912	14,840	12,260
Company Used Gas—Credit	2,428	2,156	2,372
Net to Reserves and return	$ 133,129	$ 113,657	$ 109,056

(Ex. 117, Statement No. 2, Appendix.)

In "*Breakdown of General Expense*" (Ex. 116), as modified by "Revised Exhibit 116" (Ex. 242, Statement No. 3), certain eliminations are made, and in breakdown of "*Regulatory Commission Expense*" (Ex. 242, Statement No. 2), certain additions are made, and both are reflected in "Revenue, Expense and Income" applicable to "Sales for Resale," as set forth in "Revised Exhibit 117" (Ex. 245, Statement No. 6). (The additions to 1941 "Regulatory Commission Expense," set forth in Supplement to Exhibit 242, are not so reflected in "Revised Exhibit No. 117.")

"*Revised Exhibit No. 117*" (except as above noted) represents Revenue, Expense and Earnings PRESENTLY applicable to all *Sales for Resale*, and for the years 1939, 1940 and 1941, which are summarized as follows:

Gas Sales M. c. f.	1939 (Actual)	1940 (Actual)	1941 (Projected)
Sales for Resale	1,706,411	1,864,636	1,907,000
Domestic	1,282,056	1,480,220	1,482,200
Industrial	424,355	384,416	424,800
Gross Earnings			
Sales for Resale	$ 579,578	$ 640,993	$ 655,116
Domestic	488,264	554,671	563,876
Industrial	91,314	86,322	91,240
Operation and Maintenance			
Purchased Gas	$ 330,410	$ 388,690	$ 401,830
Transmission Operation	29,310	27,480	38,320
Transmission Maintenance	3,770	8,050	13,950
General Taxes	29,530	31,704	32,643
Regulatory Commission Expense	14,079.16	32,997.82	27,600
General Expense—Other	27,251.84	27,971.18	33,335
Federal Income Tax	13,364	14,343	10,026
Company Used Gas—Credit	2,428	2,241	2,372
Net to Reserves and Return	$ 134,291	$ 111,998	$ 99,784

(Ex. 245, Statement No. 6, 242, Statement Nos. 2 and 3, Appendix)

(3) REVENUE, EXPENSE AND INCOME—ALLOCATION TO "SALES FOR RESALE," CHEYENNE, WYOMING (Ex. 118, 245.)

Similarly applying the principles and methods of allocation applicable to operations of Colorado-Wyoming Company, as hereinbefore abstracted under the subject title "The Method of Allocation, Applicable in this Case" to "Sales for Resale," Cheyenne, Wyoming, the "Revenue, Expense and Income" attributable thereto was ascertained.

The witness HANCOCK testified that in Exhibit 118, Statement No. 3, entitled "Earning Statement—Sales for Resale at Cheyenne, 1939-1945":

> "The earnings so apportioned, for the year 1939 and ten months of the year 1940 are based on actual operation, and for the remainder of the period ending in 1945 are allocated on the projected earnings of the company as shown on Exhibit No. 115. The volume of gas sales, total revenue and cost of purchased gas are predicated on actual and expected sales at Cheyenne for resale. Transmission and operation expenses and general taxes are apportioned. Federal income taxes were based on Cheyenne earnings so found."

(Vol. 28, p. 3891.)

Such allocated revenue expense and earnings, for the years 1939, 1940 and 1941, are summarized as follows:

Gas Sales M. c. f.	1939	1940	1941
Sales for Resale	494,058	525,965	549,200
Domestic	439,204	470,800	494,200
Industrial	54,854	55,165	55,000
Gross Earnings			
Sales for Resale	$ 182,152	$ 193,300	$ 201,500
Domestic	166,336	177,300	185,550
Industrial	15,816	16,000	15,950

Gas Sales M. c. f.	1939	1940	1941
Operation and Maintenance			
Purchased Gas	$ 99,480	$ 113,980	$ 119,170
Transmission Operation	8,840	10,420	11,350
Transmission Maintenance	1,770	4,650	7,050
General Taxes	10,750	11,739	12,283
Regulatory Commission Expense) General Expense—Other)	12,470	12,860	14,330
Federal Income Tax	3,898	3,369	2,665
Company Used Gas—Credit	1,231	1,096	956
Net to Reserves and Return	46,175	37,378	35,608

(Ex. 118, Statement No. 3, Appendix.)

As in the case of "Sales for Resale" in the "*Breakdown of General Expense*" (Ex. 116), as modified by "Revised Exhibit 116" (Ex. 242, Statement No. 3), certain eliminations are made, and in breakdown of "*Regulatory Commission Expense*" (Ex. 242, Statement No. 2), certain additions are made, and both are reflected in "Revenue, Expense and Income," applicable to "Sales for Resale at Cheyenne," as set forth in "Revised Exhibit 118" (Ex. 245, Statement No. 8.) (The additions to 1941 "Regulatory Commission Expense" embodied in Supplement to Exhibit 242, are not reflected in "Revised Exhibit No. 118.")

"*Revised Exhibit No. 118*" (except as above noted) represents Revenue, Expense and Earnings PRESENTLY applicable to "*Sales for Resale at Cheyenne*," and for the years 1939, 1940 and 1941, which are summarized as follows:

Gas Sales M. c. f.	1939 (Actual)	1940 (Actual)	1941 (Projected)
Sales for Resale	494,058	541,634	549,200
Domestic	439,204	487,860	494,200
Industrial	54,854	53,774	55,000
Gross Earnings			
Sales for Resale	182,152	199,899	201,500
Domestic	166,336	184,017	185,550
Industrial	15,816	15,882	15,950
Operation and Maintenance			
Purchased Gas	$ 99,480	$ 117,230	$ 119,170
Transmission Operation	8,840	9,440	11,340
Transmission Maintenance	1,770	4,200	7,040
General Taxes	10,750	11,710	12,310
Regulatory Commission Expense, General Expense—Other	11,990	17,710	17,550
Federal Income Tax	4,163	3,700	2,275
Company Used Gas—Credit	1,231	1,153	956
Net to Reserves and Return	$ 46,390	$ 37,062	$ 32,771

(Ex. 245, Statement No. 8, 242, Statements Nos. 2 and 3, Appendix.)

RATE OF RETURN (Ex. 120).

Arthur H. Bosworth, of Denver, testified in behalf of the Company on Rate of Return. (Vol. 29, pp. 3987-4095; Vol. 30, pp. 4098-4107.)

The witness graduated from Sheffield Scientific School—the Engineering Department of Yale University, in 1908. He immediately thereafter entered the employment of a firm of Denver investment bankers, and, during the early years of such employment, traveled throughout the Mountain states gathering municipal statistics and purchasing

municipal bond issues, both at public and private sale. In 1914, he became a member and Vice-President of a banking investment firm in Denver, and was engaged not only in the sale of municipal bonds but in corporate issues generally and nation-wide. In 1916, he founded the firm of Bosworth, Chanute & Company, now Bosworth, Chanute, Loughridge & Company, as the head thereof, and has continued as the head of that firm until the present time. (Vol. 29, pp. 3987-3988.)

He is a Director, Vice-President, and member of the Executive Committee of the Denver Union Stock Yards Company (one of the important livestock markets of the United States); Director of the Daniels & Fisher Stores Company (one of the leading department stores in the city of Denver); Director of the Denver Fire Clay Company (manufacturers of refractories and wholesalers of chemicals, etc.); Director of the Petroleum Finance Corporation of Texas (engaged in the exploration and producing branch of the oil industry); Director of Fox Inter-Mountain Theatres, Inc., (engaged in the operation of motion picture theatres in the Rocky Mountain States); and Chairman of the Board of Northern Oklahoma Gas Company (a natural gas pipeline and distributing company serving Ponca City, Oklahoma, and nearby points). Has been Director of the First National Bank of Denver, but retired therefrom upon the passage of the federal law prohibiting an investment banker from holding a directorship in a national bank. For many years he was Director of the Gardner-Denver Company of Quincy, Illinois, and Denver, Colorado, large manufacturers of rock drills, pumps, compressors, etc., and is at present Director of the Strawn Realty Corporation, which owns the Railway Exchange Building and the United States National Bank Building in Denver. (Vol. 29, pp. 3988-3990.)

The investment banking company, of which he is President, specializes in the handling of municipal bonds and local securities, and participates either as an underwriter or a selling group member in a great many national issues. He is invited, almost without exception, to participate in the distribution of every large industrial or public utility issue which is offered throughout the country. The broad char-

acter of the business of his firm requires the constant analysis of securities to determine whether to participate in offered issues or not.

For many years his firm has been interested in natural gas securities. In 1935, his firm with associates organized the Northern Oklahoma Gas Company; in 1936, they were members of the purchasing group which acquired the capital stock of the Oklahoma Natural Gas Company. The bonds, convertible preferred stock and common stock of this company were distributed by his firm to their customers. They dealt in the bonds and common stock of the El Paso Natural Gas Company; the common stock of the Mountain Fuel Supply Company, and the common stock of the Lone Star Gas Company. In 1938, they participated in and sold a block of Interstate Natural Gas Company, Inc. stock. (Vol. 29, pp. 3990-3991.)

In 1930 and 1935, he was a witness for Denver Union Stockyards Company on rate hearings conducted by the Secretary of Agriculture; and in 1930, a witness at a rate hearing in behalf of the Union Stockyards of Omaha, Ltd. (Vol. 29, p. 3991.)

In his study on the subject of rate return for Colorado-Wyoming Gas Company, he secured specific and official information relating to their operations from the Company. He interviewed the officers of the Company, and a number of other persons, including Mr. William H. Ferguson, Executive Vice-President of Continental Oil Company, with respect to the Wellington Field, so-called, in Larimer County, Colorado. He knows intimately the entire territory served by the Colorado-Wyoming Company, having lived in Denver virtually all his life. His firm has purchased many municipal bond issues in that territory. (Vol. 29, pp. 3991, 4024-4026, 4033-4035.)

With the permission of the Examiner, he incorporated by reference, in Exhibit 120, his previous Exhibit 93, presented in connection with his testimony on the subject of rate of return for Colorado Interstate Gas Company.

In Exhibit 93, at pages 5 and 6, he pointed out certain individual characteristics of the natural gas business and the attitude of investors toward that industry, as follows:

"The natural gas industry differs in one fundamental condition from utility enterprises serving the public with electricity, manufactured gas and water. Companies supplying these services expect to remain in business almost in perpetuity. The life of a natural gas utility depends on the life of its natural gas supply. The greatest hazard facing any natural gas pipe line company is the exhaustion of its gas supply. The natural gas industry is an extractive industry and in some respects is comparable to the oil industry and the mining industry. In a given locality, there is only a limited amount of the product which keeps the enterprise in existence. Sooner or later, the supply will be exhausted and operations will have to cease unless some new supply can be developed. If a new supply can be developed which is rather a remote contingency, and if such a fortunate event should happen, a large amount of capital would be required for the development of the new source of supply and for connections to tie its production into the existing pipe line system.

"Water is a necessity and there is no substitute for it. A water utility knows that there will always be a demand for its service and the history of water companies shows that the demand for water is fairly constant. The electric utility, under prevailing standards of living, does not have to worry about any substitute for electricity—at least so far as domestic consumption is concerned. We, of course, could go back to oil lamps, candles and gas lights, but we will all agree that this will never happen. The gas company, however, sells heating units and these same heating units can be obtained from electricity, coal or oil. This is one reason why the investor does not consider the gas industry as safe as the other classes of utilities mentioned. Another reason is the fact that the utility is handling a highly explosive commodity under high pressure conditions. The natural gas company usually sells a very substantial part of its output to industrial ensumers and fluctuations in business affect the earnings of the natural gas company to a greater extent than is experienced by other public utilities. Therefore, the investor, at the same rate of interest, would prefer to invest his capital in the securities of other public utilities.

"Evidence of the fact that the investor believes that the securities of natural gas companies have more inherent risk than those of other public utilities is found in the fact that certain states which have laws regulating the investments of savings banks discriminate to some extent against natural gas issues." (Note: He refers to the laws of Maine, Massachusetts, Connecticut, and Pennsylvania, illustrating such discrimination.) (Ex. 93.)

(Vol. 20, pp. 2771-2774.)

The witness further testified:

"I know of no other line of busines where the risks or uncertainties are substantially the same as those of the natural gas pipeline business. There are some businesses that are more hazardous, and, of course, some that are much less hazardous. I think investments in this part of the country usually carry a somewhat higher return than is the case in the East or the Middle West."

Also he further testified:

"In the case of the natural gas industry, which is quite different in this respect from water, electric or telephone utilities, competition of other fuels guard the public. If the consumer feels that the charges of the gas utility are more than the service is reasonably worth, he is perfectly free to use coal, oil, or in localities where electric energy is very cheap, to use electricity."

(Vol. 20, pp. 2778-9.)

Continuing, in Exhibit 120 he pointed out (by reference to Ex. 93) the percentage of earnings per share of common stock in the case of nine natural gas companies, which averaged 12.21%. Of the nine companies named, the capitalization of three consisted solely of capital stock, without any funded indebtedness, to-wit, Interstate Natural Gas Company, Mountain Fuel Supply Company, and National Fuel Gas Company, which companies are earning on the market price of their capital stock 8.19%, 8%, and 8.44%, respectively. (Vol. 29, p. 3992).

To demonstrate that earnings of 8% or slightly more are substantially lower than comparable figures for speculative

or highly profitable ventures, a number of well-known mining stocks and oil stocks were cited, with earnings ranging from 11% to in excess of 20%. He also cited beverage stocks and amusement stocks, which are generally regarded as highly speculative. Most of the stocks show earnings per share at market price of from 15% to 30% (Vol. 29, p. 3993).

In Exhibit 120, he carried his study somewhat further (than in Ex. 93) on the ground that "a broader view of the investor's opportunity for the employment of his capital is important in determining as accurately as possible the reasonableness of a rate which is apparently necessary to attract capital to the natural gas industry." In this connection he cited a large number of companies, all of whose stocks are listed on the New York Stock Exchange, as follows:

Four steel companies whose average earnings on the market price of their common stocks is 11.80%; four Aircraft Companies whose average earnings upon the market price of their common stocks is 16.84%; five Machine and Machinery Equipment Companies whose average earnings upon the market price of their common stocks is 15.36%; and 37 miscellaneous companies whose average earnings upon their common stocks at the market price thereof is 10.39%.

All of the companies listed in the classifications above referred to are of the highest standing, and the price quotations are those prevailing on December 4, 1940, upon which prices their earnings as above stated are predicated (Ex. 120; Vol. 29, pp. 3993-4001).

The witness pointed out from the early history of Colorado-Wyoming Company the hazardous nature of the natural gas pipeline business, giving in some detail the original development of the company, the subsequent failure of its gas supply from the Wellington Field, near Fort Collins, Colorado, and the fortunate circumstance that it was able to secure a new and independent source of supply. In this connection he noted the fact that, based upon geologists' and engineers' reports, the Company expected to have an adequate gas supply from the Wellington Field for a period of 15 to 20 years. In connection with his consideration of

the Wellington Field, he consulted William H. Ferguson, Executive Vice-President of Continental Oil Company, and other officials of that company, the owner of the field in question (Vol. 29, pp. 4001-4003, 4024, 4033-4035).

In considering the question of rate of return to which he considered Colorado-Wyoming Company entitled, he called attention to the territory served by that Company, including various cities and towns in nothern Colorado, and Cheyenne, Wyoming, served thereby, the character of such communities and their growth, with all of which facts he is thoroughly familiar. He testified as to the competitive character of the natural gas industry; considered in his study the production of coal in Colorado as a whole and in northern Colorado; and considered the several industrial sales contracts of Colorado-Wyoming Company. He also took into acocunt the size of the industrial load and the size of the various communities served by that Company, ranging from Cheyenne, Wyoming, the largest, with a population of about 22,400, down to the very smallest communities served by that Company (Vol. 29, pp. 4003-4007).

He examined carefully the contract of October 3, 1929, between Colorado Interstate Company and Colorado-Wyoming Gas Company (Ex. 101), this being the contract of sale and purchase through which Colorado-Wyoming Company derives about 98% of its supply of natural gas. He emphasized Article Seventh of that contract, which provides, *inter alia:*

"The Seller shall only be bound to furnish natural gas to the full extent that it may be able to do so through the exercise of reasonable care and diligence in the procuring of natural gas from its gas purchase contracts, and in the transportation thereof through its lines to the point of delivery and at such pressure and for such period of time as natural gas is available * * * and it is expressly understood that this contract is subject to the obligations to sell and deliver natural gas imposed upon the Seller by those two certain contracts heretofore entered into by it with Public Service Company of Colorado and The Pueblo Gas and Fuel Company, both of date of 3rd day of January 1928. It is agreed that in case of shortage, either tem-

porarily, or permanently, of natural gas and necessity for curtailment of service to any classes of consumers, the demands of domestic consumers of the Seller, the Buyer and/or of other distributing customers to which the Seller or Buyer may sell natural gas, are to be preferred over service to industrial consumers and of the amount remaining, deliveries, if any, for industrial consumers served by the Buyer shall be such part as the requirements of such industrial consumers bear to the requirements of industrial consumers of the Seller, the Buyer and of other distributing customers to which the Seller may sell natural gas; provided, however, that such domestic consumers' preference and such right to receive natural gas for industrial users shall not be exercised so as to deprive the Colorado Fuel & Iron Company of the volume of natural gas needed to complete open hearth heats then in jeopardy and to keep its furnaces warm during extreme domestic demand upon the Seller's pipe line, or so as to deprive any other industrial or commercial consumer which requires a small proportion of its normal demand to prevent damage to its appliances."

(Vol. 29, pp. 4008-10.)

The comments of the witness upon this provision of that contract were:

"The above clearly shows that the gas supply of the Colorado-Wyoming Gas Company is subject to the prior requirements of The Pueblo Gas and Fuel Company, The Public Service Company of Colorado, and part of the Colorado Fuel & Iron Company load. This is an unusual hazard to which Colorado-Wyoming is subject. Also, in considering this matter, one should realize that the Colorado-Wyoming system is at the 'tail-end' of the Colorado Interstate line. Every other connection is closer to the source of supply, which is unimportant as long as there is an abundant supply of gas but which may become highly important should the gas supply be insufficient to satisfy all demands, and particularly peak day demands" (Vol. 29, p. 4010.)

And with respect to the priority and preference of domestic consumers over industrial consumers embodied in said contract, he testified as follows:

"A natural gas company, with an inadequate supply of gas, is in a very unfortunate position. True, industrial consumers can be shut off during peak periods, but if these shut-offs are too numerous the customer, in all probability, will use some other fuel. If a domestic consumer cannot secure all the gas he needs he becomes disgusted with the service. An insufficiency of gas almost always makes itself felt during periods of very cold weather—just when the consumer appreciates heat the most. A few unfortunate experiences will cause the customer to discontinue gas service and the entire business of the gas company may be quickly lost" (Vol. 29, pp. 4011-12).

The witness further pointed out that Exhibit No. 66, prepared and testified to by Mr. George I. Rhoades on "Development of Peak Load Obligations and Line Capacity of the Denver Pipe Line," "shows that in 1945 the domestic and regular industrial peak load will be 105,952 M.c.f. and that the total peak load of all classes of gas is estimated at 164,341 M.c.f. The line capacity net, with spare engines out, is 108,000 M.c.f., and the gross capacity, with all engines running, is 125,000 M.c.f. It is not safe, nor is it good engineering practice, to rely on the running of all engines in compressor stations" (See, Table N, Ex. 66, Vol. 29, pp. 4014-15). This "shows that the line capacity is just barely over peak load obligations of domestic and regular industrial consumers; and, therefore, if the volume of sales should be greater than estimated, Colorado-Wyoming Gas Company might be curtailed in 1945 or earlier" (Vol. 29, pp. 4012-13). He then cited facts and figures showing the growth of the Denver house-heating load. From 1930 to 1940, Denver's increase in population was 10.6%, and that rate of growth was more rapid during the year ending September 15, 1940, than in any preceding year since 1930. The city's inventory of dwelling units increased by 2,460 during the year. During the 10-year period there was an increase of 11,410 in the number of dwelling units occupied (Vol. 29, pp. 4013-4016). He then concludes:

"Therefore, it would seem reasonable to estimate that by 1945 there will be 6,000 additional space heating customers in Denver. The peak daily demand of the average house heating customer is approximately 2900 cu. ft.

but in order to be conservative let us use 2500 cu. ft. An increase of 6,000 customers would, therefore, mean an increase in the daily peak demand of 15,000,000 cubic feet."

(Vol. 29, p. 4016.)

In the communities served by Colorado-Wyoming Company, the percentage of increase in population is, in practically every case, greater than in Denver (Vol. 29, p. 4004), and so it is probable there will be a substantial increase in the number of space heating customers on the lines of Colorado-Wyoming in the same 5-year period (Vol. 29, p. 4016).

"With the growth of the peak load of their own system occurring at a time when the peak load for Denver is rapidly increasing, the chance of peak load demand running ahead of the line capacity of Colorado Interstate is very much increased. The increases in volume of sales, referred to above, are based on present normal trends and rate growth. However, the increases might be substantially larger and they might occur earlier, by reason of unforseen developments. Therefore, Colorado-Wyoming is facing a real hazard because its right to gas is subordinate to that of Denver."

(Vol. 29, pp. 4016-4017.)

Without undertaking to appraise the expected tax increases involved in connection with the huge national defense program, the witness concluded:

"'I believe, for the reasons given in this statement, that the Colorado-Wyoming Gas Company is entitled to a somewhat higher return (than Colorado Interstate Company), and, therefore, it is my opinion that the rate of return for the latter company should be 9%.'"

(Vol. 29, pp. 3987-4022; Ex. 120.)

This witness, *Bosworth*, was asked on cross-examination to and did furnish numerous detailed facts and verifications (Vol. 29, pp. 4023-4077; Vol. 30, pp. 4098-4109). He testified that the rate of growth in the number of house-heating customers in the City of Denver, for the year 1940, as estimated in July, 1940, had been exceeded in December, 1940, by more than one thousand customers (Vol. 29, p. 4099).

Cross-examination of Company witness Bosworth, as follows:

Q. Now, then, what did you do with reference to examining the books and records of this company?

A. I am not an auditor.

Q. What information—

A. I wouldn't say I examined the books and records. I asked for certain books and records and they were very kind in getting them out.

Q. Which records did you ask for?

A. I asked for an earnings statement.

Q. Which year?

A. Beg your pardon?

Q. Which year?

A. I have it for some years back in my working papers here. It is about the last ten years.

Q. Do you recall how many years back?

A. I will have to refer to these papers to give it to you exactly.

Q. Yes.

A. The years 1929 to 1939, inclusive.

Q. That is the earnings statement of the company?

A. Yes, sir.

Q. Does that show the earnings of the company for each of those years?

A. It does, yes, sir.

Q. Would you consider that a pretty good earnings statement?

A. What do you mean by "good earnings statement"?

Q. Just what its name implies.

A. It shows it is in black every year, if that is what you mean. They had no deficits in any of those years.

Q. They are in black to start off with?

A. Yes, sir.

Q. How much above the black are they?

A. It varies. The peak year occurred in 1933—I am mistaken. It was 1932 that it was slightly higher—well, 1930, 1931, and 1932 were better years from a standpoint of net earnings than any subsequent years.

Q. That is an earnings statement as per the company's books?

A. That is correct.

Q. Unadjusted?

A. That is correct.

Q. And what year was it when their earnings were the highest?

A. 1930.

Q. What has been their average rate of return?

A. I couldn't give you that figure because as I have indicated in my testimony, I have made no study of their valuation, rate base. Without that I couldn't tell you.

Q. Then you don't relate that earnings statement at all to the company's investment?

A. I don't relate—

Q. As per their books.

A. No. I say that they earned X number of dollars in a certain year. That is what the statement means to me.

Q. In the absence of relating it to the company's investment and its property, how are you going to give that earnings statement any particular weight? In other words, you have just an earnings statement there?

A. That is right.

Q. You haven't attempted to compute the rate of return of that company?

A. No, I didn't attempt to figure their rate of return because I have had no information as to their rate base. Without that this isn't adjusted—this doesn't go. This statement does not show the amount of depreciation taken.

Q. You don't know the book cost of the property as reflected there?

A. I do not. I see the balance sheet. I know the figure at which they are carrying it on the balance sheet, but I don't know whether that is in agreement with what may be the valuation for rate purposes or not.

Q. Did you examine or make a study of the company's dividend record?

A. As I say, I have a statement here of the earnings. In view of the fact that this company's stock is entirely owned by the Public Service Company of Colorado now, and prior to that time it was owned by the Cities Service Company, the dividend record wouldn't carry much weight.

Q. It wouldn't carry much weight with you in preparing this study?

A. No.

Q. It might not carry much weight with reference to

whether anybody would be able to buy any of this stock, but wouldn't it certainly carry a great deal of weight with you in connection with the preparation of this particular study?

A. I don't see why it should, no, sir.

Q. You don't see why it should?

A. No, sir.

Q. As to what the company's dividend record was?

A. No, I don't—in the case of a wholly-owned subsidiary of this sort I don't see how that would have a bearing on this at all.

Q. Did you inform yourself as to that or did you look into that record?

A. I asked about the dividends, I think, that was paid this last year. That came up merely as an incidental matter. I repeat this: When that company is—because that company is 100 per cent owned, it seems to me it is a matter of *whither* it suits them, subject to the regulations of the Internal Revenue Department, as to whether they take any dividends or take every dollar of the earnings. Here is a parent that stands back of that company and says, "If you need more money I am here to furnish it to you. You might as well pass over all of your earnings now."

If that company were an independent company and on its own feet it might say, "We can't afford to pay out all of our earnings as we are apt to need improvements next year. We have to be careful."

There is no question about that.

Q. So the dividend record of this company wouldn't make very much of an impression upon you because of the parent company's close relation to it?

A. That is one reason it wouldn't, yes, sir.

(Vol. 29, pp. 4026-4031.)

* * * * * *

Q. You were giving a very definite hazard to the possible inadequacy of the supply of gas to Colorado-Wyoming, and that relates itself back to where this gas is coming from and how adequate that supply is for the present and immediate future, isn't it?

A. I think not. I think that we got misunderstanding

each other because I was talking in respect to the general situation; first, that the greatest hazard a gas company faces is lack of supply of natural gas.

Q. That's right. That's the first thing I want to get started on.

A. Then, I think I got rambling around from that and I think I didn't make the statement—I didn't intend to make the statement that the Colorado Interstate is in the immediate future faced with insufficient gas supply. Now, apparently you took what I said to mean that.

Q. Well, you don't mean to say, then, that there is any danger facing Colorado Interstate in the immediate future of not having an adequate supply?

A. Not in the immediate future, no, I do not.

Q. And Colorado-Wyoming purchases its gas from Colorado Interstate. Now, where is Colorado-Wyoming's inadequacy in the picture?

A. I think it is a matter of these peak line demands.

Q. What company? You say the peak line demands?

A. On the Denver line of the Colorado Interstate Gas Company.

Q. All right, how is that going to deprive Colorado-Wyoming of its supply of gas, its necessary requirements?

A. I don't say that it is going to do it. I say that there is a hazard of it, and I thought I took about five or six pages here in pointing it out.

Q. Very well. Now let's briefly take those hazards and see. Where do you get the hazard, first of all, that the peak load demands of the Colorado Interstate will interfere with the furnishing of the requirements of natural gas for the Colorado-Wyoming?

A. Well, it is stated in this contract between Colorado Interstate and Colorado-Wyoming, it definitely states that the right to serve Colorado-Wyoming is junior—we'll say subordinate—to the sales to Public Service Company of Colorado, Pueblo Gas and Fuel Company and part of the Colorado Fuel & Iron load.

Q. All right, what provision of those contracts have those definite—

A. I have quoted them here.

Q. Referring to that Article Seventh of your exhibit on Page 14—

A. What page is that? I didn't hear you, Mr. Lange.

Mr. McCreery: Page 14.

By Mr. Lange:

Q. Page 14 of your exhibit.

A. Yes. I have the contracts here in full.

Q. Yes, but the Article Seventh that you set up there, is that the one you rely upon?

A. No. You see before that on Page 13 I summarize this contract of October 3rd.

Q. All right.

A. I'll read it verbatim if you'd like, from the contract.

Q. Let's see, where is there a definite priority given the Public Service Company for service at Denver under that—

The Trial Examiner: Well, now, let me understand. Is the contract that you have quoted on Page 14, Article Seventh; is that the contract that the Pueblo Gas and Fuel Company, dated January 3rd, 1928—

The Witness: No, this is on Page 14, Mr. Examiner.

The Trial Examiner: Yes.

The Witness: Article Seventh of the contract of October 3rd, 1929, and it so states, you see.

This is all part of Paragraph 9 on Page 13—it refers to this contract.

The Trial Examiner: Yes. Well, now, your question, Mr. Lange, goes to what part of that contract dated October 3rd, 1929—gives preference to the other customers; is that it?

The Witness: That is in Article Seventh.

By Mr. Lange:

Q. Show me where that priority exists.

A. On the bottom of the page. You see those dots? It says:

"• • • and it is expressly understood that this contract is subject to the obligations to sell and deliver natural gas imposed upon the seller by those two certain contracts heretofore entered into by it with Public Service Company of Colorado and the Pueblo Gas and Fuel Company both

of date of 3rd day of January 1928. It is agreed that in case of shortage, either temporarily, or permanently, of natural gas and necessity for curtailment of service to any classes of customers, the demands of domestic consumers of the seller, the buyer and/or of other distributing customers to which the seller or buyer may sell natural gas, are to be preferred over service to industrial consumers and of the amount remaining * * *"—let me read that directly from this contract.

Q. Very well.

A. In the first place, before you get to Article Seventh here, the first page of the contract starts out with the recital:

"Whereas, the seller"—which is the Colorado Interstate Gas Company—"now has undisposed of and available for sale in and through its pipe line a supply of natural gas in excess of the deliveries there required of it under commitments heretofore made by it and particularly those certain contracts entered into by it with Public Service Company of Colorado and Pueblo Gas and Fuel Company both of date 3rd day of January 1928, and a certain application for natural gas by the Colorado Fuel & Iron Company made to and after agreed modifications accepted by Ford, Bacon & Davis, Inc. and assigned June 15th, 1928 to and accepted by seller with the consent of said Colorado Fuel & Iron Corporation and the seller is now able to deliver such gas to the buyer and the buyer desires to purchase of the seller natural gas."

In other words, they state they had more gas than they need for these contracts.

Q. That's right.

A. Now, even on Article Seventh they go—they even more definitely state that the requirements of those contracts already in existence are prior to the obligations under this contract.

This is on Page 13 of the contract, the middle of the paragraph:

"And it is expressly understood that this contract is subject to the obligations to sell and deliver natural gas imposed upon the seller by those two certain contracts here-

tofore entered into by it with Public Service Company of Colorado and the Pueblo Gas and Fuel Company, both of date of the 3rd day of January 1928."

Q. All right, that particular clause or those particular clauses of that contract won't ever come into existence in so far as becoming active unless there is a curtailment in the supply of gas available to Colorado Interstate?

A. No, sir.

Q. Isn't that true?

A. No, sir.

Q. As long as the supply of gas to Colorado Interstate is adequate.

A. It is a question of getting it through its pipe lines and of satisfying the peak demands of these prior contracts.

Q. Oh, now you have got the capacity of the line, too, in question, or is it just the adequacy of the supply?

A. No, it is a question of getting the supply through the line.

Q. Getting it through the line?

A. Yes, sir.

Q. Has there been any difficulty experienced by Colorado-Wyoming Gas Company—by Colorado Interstate Gas Company to get any of the supply of its gas to its customers?

A. Well, now, when Mr. Sands testified there have been certain interruptions to service and breakdowns—I think five or six of them—are you referring to that?

Q. Well, no. Even those were very few over the history of that system?

A. Very few.

Q. You would consider that that was a pretty good operating record, wouldn't you?

A. Excellent; yes, sir.

Q. Yes. Now, then, you don't dispute the fact that there is adequate gas in the field to supply Colorado-Wyoming for the present or immediate future? I beiieve you stated that.

A. That is correct.

Q. All right, conceding that that is adequate, then you come to the point of whether there is adequacy in facilities to deliver to markets. Is that the next point?

A. Yes, sir.

Q. And you say there is some question about the

adequacy of facilities of Colorado Interstate Gas Company to deliver to its markets?

A. If you will refer to this Exhibit No. 66—I imagine you are familiar with that—Mr. Rhodes' statement.

Q. Which one? Which statement?

A. On peak demand. It is headed: "Development of Peak Load Obligations and Line Capacity of the Denver Pipe Line."

Q. That is the excerpt from Mr.—

A. I am now referring to the exhibit itself. I quoted his table—I mean, I reproduced and referred to his Table N which appears in that exhibit.

Q. And where did you get the impression that the present facilities of Colorado Interstate Gas Company's capacity—the line capacity to deliver is presently inadequate?

Mr. McCreery: I think, Mr. Examiner, there is no such statement in this record that this line is presently inadequate. He is talking about what may develop. I think the exhibit is clear. There is no such testimony in the record, and it is not fair to put a witness up against that kind of inquiry.

The Trial Examiner: I think your question, Mr. Lange, goes a little beyond what Mr. Bosworth has said.

Mr. Lange: This witness has made statements beyond what he has set up in his exhibit. If he has it, why, all right, but—

The Trial Examiner: He has said that he regards this peak capacity or the lack of capacity on peak demands in the line as a hazard.

Mr. Lange: Yes. Well, then, I want to know whether the present capacity to take care of peak days on the Colorado Interstate is what he considers a present hazard.

The Trial Examiner: Yes. Well, that wasn't what you asked him, though, Mr. Lange. I think that is proper.

Did you get the question?

The Witness: Can I get the question again?

The Trial Examiner: Restate it, will you, Mr. Lange?

By Mr. Lange:

Q. I just want to know whether you consider the present capacity of the Colorado Interstate to take care of its deliveries on peak days as a hazard to Colorado-Wyoming Gas Company.

A. Not at present, no.

Q. What about the immediate future?

A. What does "the immediate future" mean? I have said that by 1945 I thought there might be some question.

Q. By 1945?

A. Yes.

Q. And to what extent do you believe that at that time it would become a hazard?

A. Well, if you will refer to this Table N, and by the way, this Table N is at the end of Mr. Rhodes' very interesting statement in which he recites what can be done to build up the capacity of this line to its absolute limit, which would include putting in another compressing station at Colorado Springs, would include more engine and compression capacity at the existing stations, and he sets forth there, you will notice, early in the life of the line, with the stations there, a capacity of 70,000 Mcf., or 70,000,000 feet a day. In 1929 the total peak load demand of all classes of gas was only 58,000,000 feet; so you see they had very adequate coverage not only of the domestic and regular industrial load but all the load.

Then you will see that in two years, a couple of years—in 1931 they built that up by putting in some more compressor capacity. They increased the line capacity to 90,000,000 feet a day. Over here is domestic load, and in 1932 when it was completed they only had 59,000,000 feet a day of domestic and regular peak load demand, and follow it on down here and you see that having done that it has been adequate to take care of the peak demand up to this time.

Q. Yes.

A. Because in 1940 they had practically 80,000,000 peak load obligations on regular domestic business and they had 90,000,000 available, but as this thing is set up, you see it gets a little close there. By reason of additional compressor capacity, they increase their line capacity to

100,000,000 feet a day, and then I should remark that with the spare engines available, with all of the engines and everything they have got, shooting the whole works in, by way of expression, the figures of line capacity are given in the right-hand table, and they get ultimately to a line capacity here with proper reserve engine capacity of 108,000,000 feet a day. Well, you see in 1945, you have practically 106,000,000 feet a day according to this estimate.

Now, the argument that I was making was that this Colorado-Wyoming gas is junior to the right of Denver. Under this estimate—

Q. Well, now, right there: "Junior to Denver," in what respect?

A. In other words, that if Denver needs the gas Denver has the prior right to buy the gas even if Colorado-Wyoming can't get all the gas it needs.

Q. In what respect does that apply to domestic or resale industrials?

A. As I understand it—

Mr. McCreery: The contract speaks for itself, Mr. Examiner. It is recited there. The contracts are cited here, and a matter of legal conclusion is outside the realm of this witness who hasn't claimed to speak with legal qualifications and if he did speak from a legal standpoint it wouldn't be acceptable; so I object to it.

The Trial Examiner: Read the question.

(The question referred to was read by the reporter, as set forth above.)

The Trial Examiner: I think if Mr. Bosworth knows he may state.

The Witness: Well, my understanding is that domestic gas always take precedence over industrial gas.

By Mr. Lange:

Q. Yes. In other words, the domestic on Colorado-Wyoming's line would take precedence over industrial gas on the Colorado Interstate's markets.

A. That might be. I don't know.

Q. The Public Service Company's market in Denver?

A. I don't know.

The Trial Examiner: Well, now, Mr. Bosworth, this Table N includes the peak load obligation of the Colorado-Wyoming Gas Company, doesn't it?

The Witness: Yes, it does.

By Mr. Lange:

Q. This conference that you had with Mr. Rhodes relative to the peak load obligations of Colorado Interstate, you state in fact on Page 17 of your exhibit that you had discussed this with Mr. Rhodes and he in turn told you that he had been supplied with the basic data by Mr. Beardsley.

A. That is correct.

Q. And so those figures that you received from him and that information has come through Mr. Beardsley.

A. No, I didn't receive any figures from Mr. Rhodes at all. I received this exhibit and got that from Colorado-Wyoming Gas Company. I read it carefully and I found that Mr. Rhodes was still in town so I called on him to find out how he had estimated this growth, because it is my contention—at least it is my argument in this statement of mine that the territory in and around Denver is growing at a more rapid rate than the territory in some other parts of the state, other territory served by this line, and that if—as I believe may prove to be the case—Denver grows more rapidly than was taken into account in the preparation of these figures, that then there will be a domestic demand for gas in Denver occurring at a time when Colorado-Wyoming's demands will also be increasing and there may not be an adequate supply of gas at peak periods for Colorado-Wyoming.

Q. Well, did Mr. Rhodes at any time in his statement or in his testimony state that during this period of time through 1947 that there would be any probable inadequacy of supply to Colorado-Wyoming Gas Company on peak days?

A. I asked Mr. Rhodes about this statement. I asked him where he had got the figures for growth and he told me, and I didn't ask him the question that you have just asked me.

Q. Well, then, at what time is it that you say that the possible peak load will be reached on the Colorado Interstate line so as to in any manner interfere with the receipt

by Colorado-Wyoming Gas Company of an adequate supply of gas?

A. I can't fix that time accurately. I have attempted to show in this statement that the number of customers in Denver is growing very rapidly, the number of new buildings. Our city is growing in population. For some years it was not. Back fifteen years ago, why, we were growing at a very slow rate, and it is during the last ten years that we have had any appreciable—any what I would call satisfactory rate of growth here, and most of that has been in the last few years, and it shows—the survey I spoke of shows that the rate of growth in the last year, 1939, was double the average rate for the rest of the years. Now, I have tried to point out here that if that continues that there may not be enough gas to take care of Colorado-Wyoming's needs at the peak.

Q. Well, you don't know, though, or you haven't any idea at the present how far distant in the future that is?

A. I stated that it might occur by 1945. I don't know that it will, no. It is a hazard.

Q. How did you fix that 1945 period?

A. Because in this table you see that it is getting pretty close for this line in 1945.

Q. Did Mr. Rhodes indicate either in his testimony or in any exhibit that he filed that there would be any danger or probability of Colorado-Wyoming Gas Company being unable to get an adequate and sufficient supply of gas in 1945?

A. I didn't hear Mr. Rhodes' testimony. I didn't see any of his exhibits other than this one exhibit which I obtained from the Colorado-Wyoming Gas Company.

Q. And did Mr. Rhodes in his conversation with you tell you that in 1945 the point would be reached where there would be danger in Colorado-Wyoming getting an adequate supply of gas from Colorado Interstate?

A. He stated to me that the figures show very conclusively the way the peak load obligations of domestic regular customers, has steadily grown, and in estimating the future here you see that they get up very close to the line capacity as it will be after these improvements have been made. I didn't outline or discuss with him the way I was going to use this in this statement. I asked him if I understood this thing correctly, this table correctly,

and I asked him to tell me how he had estimated this growth and he said, "I took figures on growth supplied to me by Mr. Beardsley," and I said, "Did you pay particular attention to the growth in Denver and in Northern Colorado?" I said, "In my judgment that section of the state—Denver and Northern Colorado—is growing more rapidly than the rest," and he stated that he felt that Mr. Beardsley had estimated the general growth, but was not specific.

Q. So you then assumed from that information given to you, as well as from the study of Mr. Rhodes' exhibit and this table, that in 1945 the danger point would be reached?

A. Yes, sir. That was my conclusion.

Q. That was your conclusion?

A. Yes, sir.

Q. And based on that information that you just related?

A. No, based on the statement in my testimony, the source of information with reference to growth.

Q. Do you know what the capacity of this line is to deliver gas on peak days?

A. I do. It is stated in this table what it is right now. In 1940 it is 90,000,000 feet a day.

Q. Well, the table you refer to prepared by Mr. Rhodes goes down through 1947, doesn't it?

A. Yes, sir. It is projected into the future to 1947.

Q. Why did Mr. Rhodes project it through 1947?

A. I don't know why he picked that particular period, except that I would imagine that it is about the 20-year period of the Public Service contract and also the contract with Pueblo Gas and Fuel and Colorado Fuel & Iron, that the service was started early in 1928.

Q. Yes.

A. —in January as I recall it. What was it, January 3rd, 1928, something like that? So this would give the 20-year period covered by this contract. Now, that's what I inferred.

Mr. Rhodes didn't state that to me, that is why I imagine this table covers that. That apparently would be the case.

Q. So in determining the extent of this hazard, the capacity of the line of Colorado Interstate to deliver gas under peak load conditions to Colorado-Wyoming, that it comes into the picture in 1945?

A. Repeat that again.

Q. In other words, in relating this hazard in the rate of return study, you are of the opinion that by 1945 the peak load obligations of Colorado Interstate will be such that the capacity of its line will not be able to deliver to Colorado-Wyoming an adequate supply of gas?

A. I say that there is a hazard there. Whether it is going to occur in 1945, I don't know. It could come sooner. It might not come that soon, but the hazard should be *reconed* with in considering what is a proper rate of return. It is much more hazardous, I think, than if they provided that the Colorado-Wyoming Gas Company is going to have preference over Public Service Company of Colorado. There may not be enough gas for everybody available, but if in case of any insufficiency, they were going to give gas to Colorado-Wyoming first and the Public Service Company of Colorado can wait; then I would say that that was a very much better situation for Colorado-Wyoming, and I am pointing out that they don't have that. They don't even have equality with Public Service of Colorado. They a e eating at the second table when it comes to this gas supply.

The Trial Examiner: We will stand in recess for five minutes.

(At this point a short recess was taken, after which proceedings were resumed as follows:)

The Trial Examiner: The hearing will be in order.

By Mr. Lange:

Q. Mr. Bosworth, in your previous testimony you gave in connection with Colorado Interstate Gas Company, I believe you stated that an ideal situation with reference to natural gas companies is where they have their own supply of gas and control their market, is that what you consider the top situation?

A. That is right.

Q. It is an ideal one and in such a situation their financial requirements can be most easily met and that situation is considered most favorable in the money market?

A. That is right.

Q. All right. In this company we have found that there is no question about the supply of the gas being there. We have come to a point now of the mechanical

means of getting it to the Colorado-Wyoming Gas Company. You have some doubt about the—strike that.

You bring in a hazard there because of this possible mechanical difficulty in getting the gas to the Colorado-Wyoming Gas Company in 1945 and thereafter?

A. You have a pipe line built at a very large cost which comes to Denver, and in 1945 or thereabouts, according to Mr. Rhodes' Table N, you have only about two million feet of excess capacity. I was trying to point out that a growth here in Denver of six thousand consumers would—

Mr. McCreery: Of house heating consumers.

The Witness: Of space heating consumers, picking a figure of 2500 feet per day as the peak of each space heating consumer, would call for 15,000,000 feet a day. If you try to carry 15,000,000 feet a day where you have a capacity to carry 2,000,000 feet a day you will have difficulty.

By Mr. Lange:

Q. All right.

A. That is a hazard. I don't say it is going to happen, however, I think it is a hazard that should be considered in a rate of return.

The Trial Examiner: Mr. Bosworth, did you know that Mr. Beardsley did not give consideration to the growth of Denver in making his estimates?

The Witness: That is the only reason I went to see Mr. Rhodes, to find out if he had; if he had, I didn't think it proper for me to come along and figure it twice. He told me that Mr. Beardsley had taken it into consideration in a general way—had taken into consideration in a general way the growth very largely based on the way the growth had come along in the past and he was projecting it in the future. I said that I did not think he was specific.

The Trial Examiner: When he said Mr. Beardsley considered it generally, he meant, did he not, that he considered it generally along the territory served by the Denver pipe line?

The Witness: Yes, sir.

The Trial Examiner: You may proceed, Mr. Lange.

By Mr. Lange:

Q. Now, then, that is a mechanical—strike that.

That is a hazard based on mechanical inadequacy? That is what it would be?

A. I don't know whether it would be mechanical inadequacy. It is a limitation of the capacity of the pipe line. I think that expresses it more accurately.

Q. Very well. Then you come to the other end of your ideal situation and that is a definite market that the company itself sells to? You leave it the way you put it where the company itself distributes gas?

A. Distributes gas. I pointed out from the investor's standpoint—the investor thought there was better investment qualities in a situation like that than where you have a pipe line company that has no control over its market.

Q. That is right. Have you gone into it purely from the investor's standpoint now?

A. That is right.

Q. Very well. Isn't that the very situation that obtains with this company?

The Trial Examiner: You mean now, Mr. Lange, it has control of the market?

Mr. Lange: That is right. We are on the market end of it now.

The Witness: This company who sells gas to the Public Service Company of Colorado—

By Mr. Lange:

Q. All right—

A. Let me finish, if I may.

Q. All right.

A. I perhaps should refer to notes, but my recollection is that the Public Service Company of Colorado furnishes the Cheyenne Light, Fuel & Power Company and Home Gas & Electric Company at Greeley—

Mr. McCreery: May I correct that? It is the Greeley Gas & Fuel Company.

The Witness: The Greeley Gas & Fuel Company. That is a slip of the tongue I made.

By Mr. Lange:

Q. All of these delivery points that you have on Page 11 of your Exhibit—

A. Yes, sir.

Q. —with the exception of Greeley, are they all distribution companies owned and operated by the Public Service Company of Colorado?

A. All of these companies with the exception of Greeley?

Q. Isn't that a fact? Do you know?

A. Practically all of them. There is the Highway Gas Company that runs out of Fort Collins which I do not believe belongs to Public Service Company of Colorado. It is a very small and insignificant part.

Q. Is that on this list on Page 11?

The Trial Examiner: You said Fort Collins, Mr. Bosworth. You meant these towns served?

The Witness: The towns served. This is a little line that runs out of Fort Collins that serves some of that densely populated farming section.

Mr. Lange: Yes.

The Witness: Then, as I say, at Greeley it is the Greeley Gas & Fuel Company.

By Mr. Lange:

Q. Who are the officials of that company?

A. The Greeley Gas & Fuel Company?

Q. Yes.

A. That is owned by a small holding company called the Natural Gas & Electric Co.

Q. The Natural Electric? Who are the officers of that Company?

A. I meant to bring Moody's Manual over this morning, however, I felt that when I was called I wouldn't have to do any more than read my statement, and I thought I would bring over my Moody's Manual this afternoon.

Q. You haven't it here?

A. I haven't the manual.

Q. I wish you would make a note of that with reference

to Greeley Gas & Fuel Company. Has that Company any relationship to Public Service Company of Colorado?

A. The officers have no connection with the Public Service Company of Colorado. I happen to know about that situation. That company has a management contract with Stone & Webster Service for managing its property. I met the management up there a couple of years ago when I went up to go over that property. However, I can't give you the names of the officers.

Q. Or the directors?

A. Or the directors. I think it is all in Moody's Manual. I could telephone the office and get it very quickly.

Q. I don't want to interrupt your testimony now, but if you would please make a note of that.

A. Yes. You want the officers and the directors?

Q. And control.

A. I doubt if Moody's will show the officers and directors of Greeley Gas & Fuel Company but it will show the directors an officers of the holding company. That is what you want?

Q. Yes. So far as Greeley is concerned, the towns listed on Exhibit No. 120, Page 11, are all served by Public Service Company of Colorado, aren't they? Aren't they served by the Public Service Company of Colorado which is the distributing company? With the exception of Cheyenne?

A. Cheyenne Light, Fuel & Power Company.

Q. We will come to that a little later. How about these others?

A. Yes. Of course you have a different situation with Fort Logan and Fort Sheridan. The gas is sold to the War Department—

Q. The United States Government?

A. The United States Government.

Mr. McCreery: You mean Fort Warren, don't you?

The Witness: What did I say? Did I say Fort Sheridan?

Mr. McCreery: Yes.

The Witness: I meant Fort Warren. The gas is distributed by the Army to its own post.

By Mr. Lange:

Q. You are still on Page 11?

A. Yes.

Q. In those towns the Public Service Company of Colorado distributes the gas?

A. That is right.

Q. That gas is purchased by Public Service Company of Colorado from Colorado-Wyoming Gas Company?

A. True.

Q. Of course, Public Service Company of Colorado is in 100 per cent control of Colorado-Wyoming Gas Company?

A. Yes, that is right.

Q. What difference is there in that particular with reference to an investor's inquiry as to market value, where that is concerned, as to whether the Colorado-Wyoming Gas Company distributes in those towns or whether the Public Service Company of Colorado would distribute in those towns?

A. I don't see that it makes the slightest difference.

Q. It is just as if the Colorado-Wyoming Gas Company were distributing in those towns?

A. Yes.

Q. When we come to Cheyenne, the same situation obtains because there is 100 per cent ownership between the companies there?

A. That is right.

Q. So, insofar as all of the markets you named here are concerned for all practical purposes, it would be just as if the Colorado-Wyoming Gas Company distributed it?

A. I think so.

Q. You have that part of the ideal situation there, haven't you?

A. Yes.

Q. Now, then, with reference to your industrial load on this line, do you consider the—strike that.

You have that information stated on Page 12 of your exhibit making reference there to the direct industrial sales, isn't that correct?

A. That is true.

Q. Now, do you know the history of the development of the direct line industrial of this company?

A. I think I know something about it. I don't know all about it, of course.

Q. Did you study the times of attachment of the several industries here?

A. Yes, I did.

Q. All right, what was the industry that first went on the line?

A. The Cement Company.

Q. The Colorado Portland Cement Company?

A. Yes.

Q. That was the company that was originally getting its gas from the Wellington field that you mentioned a while ago?

A. Yes, that is right.

Q. Do you know what the amount in volumes of gas was that that company took out of that field per day while it was getting gas from that field?

A. No, I do not.

Q. Did you ever make any investigation of that?

A. I did not.

Q. You made no study of that—strike that.

You asked the Continental Oil Company officials about that when you talked to them?

A. No. I asked them to explain what had happened and I gave you the explanation they gave me.

Q. They didn't mention anything with reference to the load taken by the Portland Cement Company and the rate of withdrawal of gas to supply that load?

A. No, I did not.

Q. So this load has been on this line ever since the Wellington field brought in gas, and has been on continually, hasn't it?

A. As far as I know it has been on continually.

Q. That is a pretty big industrial customer, isn't it?

A. Yes, it is for this company. It is only about ten per cent of the load of the Colorado Fuel & Iron Corporation.

Q. Well, do you consider this in the same relation that the Colorado Interstate Gas Company considers it in investment—in size of investment? What comparison are you making between Colorado-Wyoming Gas Company and Colorado Interstate Gas Company with reference to size of investment?

A. The only comparison I am making is that this is a big company and a big industrial customer of the Colorado-Wyoming Gas Company—the Colorado Portland Cement

Company. The C. F. & I. is a big customer on the Colorado Interstate Gas Company's line. I say that this is about a tenth of the size of the other. I just bring it out to illustrate my point that this is a very much smaller enterprise than Colorado Interstate Gas Company. You can illustrate the same point in a number of different ways.

Q. You have some small enterprises sometimes that operate very profitably and that investors consider very profitable enterprises, don't you?

A. Absolutely.

Q. Even small ones?

A. That is right.

Q. In fact, a great many of the smaller operating utility companies in the United States are particularly profitable, aren't they?

A. I would say it is the exception more than the rule.

Q. You say that the small operating companies when they are permitted to operate without interference of regulation aren't more profitable and don't operate more successfully?

A. If you are going to suppose a certain set of conditions which I don't think exists, why, then we are just beginning to enter the realms of speculation because I don't believe there is any utility, big or small, that escapes regulation these days.

Q. Well, go back to this company. With an adequate supply of gas beset only with a possible hazard of mechanical difficulty in getting this gas available at some time in the future; and with an adequate or a complete control over its resale market, the fact that it is much smaller than Colorado Interstate Gas Company wouldn't indicate to an investor that it is less profitable, would it?

Mr. McCreery: Just a moment.

This hypothetical question doesn't reflect all of the risks that are stated by this witness. He has talked not only of the risk of delivery but the risk of priority which has not been mentioned in this hypothetical question, and that being so, I object to the question.

Mr. Lange: Let him answer—let him add his opinion about that alleged priority.

Mr. McCreery: You ask the question again, if you will, Mr. Lange.

Mr. Lange: I will just add that particular clause to it.

The Trial Examiner: Perhaps you better restate it.

Mr. Lange: The stenographer can read it and I will add that to it.

(The record referred to was read by the reporter, as set forth above.)

The Witness: In the first place, this company doesn't own its own gas supply. You were referring to some of these companies a few minutes ago that had no bonded indebtedness, that owned their own gas supply, that owned their own pipe lines, and that owned their own distributing system in the cities they served. I don't think this company comes into that class at all.

Q. It doesn't?

A. In the first place it doesn't own its own gas supply, it has a right to purchase gas which is junior to the right of a very much larger company—in fact, I was thinking of Public Service Company alone, but it is also junior to the Pueblo Gas and Fuel Company and to part of the C. F. & I. load, and the contract goes on to say it may be junior to certain industrial loads in which appliances would suffer if it were shut off. It is in a junior position so I would think the investor would certainly take cognizance of that hazard.

Q. Because this happens to be a smaller line?

A. I think the investor prefers size when he can get it, everything else being equal. I think the risk is larger in small enterprises than larger ones.

Q. "Smaller" is a relative term.

A. That is true.

Q. Do you consider this Colorado-Wyoming Gas Company a small system or only smaller in comparison with Colorado Interstate Gas Company?

A. I consider it a small system, a decidedly small system.

Q. A decidedly small system?

A. Yes. As a matter of fact—in stating my qualifica-

tions I mentioned that—I am a director of the Northern Oklahoma Gas Company. It is interesting to note that our sales down there are about the same as the sales here and we consider that a very small situation in the gas field, so I consider this one a small one.

Q. To what companies does your Oklahoma company sell its gas?

A. The only large contract we have as an industrial contract is one with the Continental Oil Company. We own our distributing systems in Ponca City and in Newkirk. We wholesale gas to two or three municipalities at the city gate for distribution but there aren't very many industries in that section. We serve a rather small territory. The only large industry is the Continental Oil Company's refinery at Ponca City.

The Trial Examiner: Mr. Bosworth, you volunteered this statement as to the smallness or the largeness, but in fact in your exhibit that situation was not considered, was it? You considered what you construed to be the risk to the Colorado-Wyoming Gas Company, did you not?

The Witness: I did. I merely remarked that this was a small system—that in general smaller utilities are more hazardous than large ones. That is on Page 13, Mr. Examiner, at the middle of the page just before Paragraph 9. I think that was the reason Mr. Lange asked me the question.

By Mr. Lange:

Q. Do you have in mind an isolated—strike that.

When you speak of that relative term "small or smaller," you have in mind an isolated transmission company that is of this size, of the size of Colorado-Wyoming Gas Company?

A. Which is the isolated transmission company?

Q. That is what I am getting at. Were you thinking of an isolated company?

A. I was comparing Colorado-Wyoming Gas Company with the Northern Oklahoma Gas Company which is not an isolated transmission company.

Q. What control does your company have over its market?

A. We have the control that goes with ownership of distribution facilities.

Q. What distribution facilities do you have?

A. We serve the town of Ponca City which is the largest town in the system.

Q. How large a town is that?

A. About twenty thousand people.

Q. About twenty thousand people?

A. Yes.

Q. What other distribution points?

A. Newkirk.

Q. Newkirk?

A. Yes.

Q. What size town is that?

A. Between two thousand and twenty-five hundred.

Q. All right, what other towns?

A. Those are the only two that we serve directly. There is Fairfax, Burbank, and one or two other small places that we sell gas to at the town border. I ought to have the names in my head but I will have to refer and find out. They are very small places.

Q. Do you have any control over the distribution in those smaller places?

A. Not where we don't own the distribution system.

Q. To get it clearly in the record, how many distribution systems do you own?

A. Ponca City and Newkirk.

Q. Only two?

A. That is correct.

Q. And over the other ones you have no control?

A. That is right.

Q. Where is the delivery point for this industrial you sell?

A. At the refinery.

Q. What do you sell them a year?

A. You mean the amount of gas we sell them?

Q. The volume.

A. Their contract calls for a minimum of two million feet a day and a maximum of, as I recall it, eight million feet. They have been taking recently gas at the rate of about six million feet a day from us.

Q. Six million feet a day?

A. Yes.

Q. Let's see, how much is that a year?

A. We won't run six million feet throughout the year.

Q. Oh, you don't?

A. I imagine about three to three and a half million feet throughout the year. You see there are shutdowns that come along. They may be remodeling their stills or repairing their stills. It is not an absolutely fixed steady load. There are peaks in that, too.

Q. Around an average of three million a day?

A. I think it will average better than three million a day.

Q. All right, now, what other industries do you have?

A. Oh, we have laundries and bakeries and little things like that in the town, but as I have testified—

Q. What does that practically amount to, the total on that?

A. Very little. I can't give you that. It is a nominal amount.

Q. All right, do you—

A. We do a very large househeating business, that is true. That is the popular method of heating houses in Oklahoma.

Q. You don't have the degree days that the Colorado-Wyoming has?

A. No.

Q. Or anywhere near that. Now, still you think that—strike that.

What are the total main line—what is the total main line mileage of your pipe line?

A. We have about two hundred miles of pipe.

Q. Two hundred miles of pipe?

A. Yes. There again this company is not so far again from the size of that, taking the branch lines and all. It is something like two hundred miles here.

The Trial Examiner: Does that include the distribution line?

The Witness: No, I think not.

By Mr. Lange:

Q. What is your total? What are your total sales in volume? What were they last year?

A. Let me get that when I get these names of the officers of National Gas & Electric Corp, I can give it to you in dollars pretty well, but I can't give it to you in feet.

Q. Yes, just the volume, total sales in Mcf., 1939 or 1940.

A. Our fiscal year ends November 30th, so I think I may have it in the office but I can wire and get it for you.

Q. You have these other figures in 1939 for comparison. Let's have them in 1939.

A. You would rather have them in 1939?

Q. That's right.

Now, you say that—

A. As a matter of fact, if you'll—may I just go on to say—

Q. Yes.

A. —that you will notice that when I picked out those three companies which I considered were best from the investor's viewpoint on my testimony on Colorado Interstate—

Q. Yes.

A. —that was Mountain Fuel Supply, Interstate of Louisiana and then National Fuel Gas, I didn't even mention Northern Oklahoma. I didn't mention it throughout the testimony because I felt that it was very small and did not furnish as good an illustration on the points I was making, for that reason, as some of these others.

Q. That was in connection with your testimony with Colorado Interstate?

A. Yes.

Q. Now, then, you say in connection with this company, that it furnishes a comparable example?

Mr. McCreery: I don't believe that there is any such statement in the record. I think the only testimony is that they were about the same in size, but not comparable as an example of anything at all.

By Mr. Lange:

Q. Just comparable in size?

A. You asked me why I considered Colorado-Wyoming a small utility and I went on to say about the size of this other company, Northern Oklahoma, and I consider that a very small utility.

Q. Well, then, we get right back to the original definition that I wanted to get clear in my mind when you used the relative term "size." Now, is it your position that you don't attempt to say that the two are comparable when you speak of the small company; do you just mean it has the same number of lineal feet of pipe?

A. No, I say that they are comparable in size in many respects.

Q. All right, I want to get the comparability that you have in mind, since Mr. McCreery objects to their being comparable. I just want to know what you have in mind.

Mr. McCreery: I wasn't objecting. I just said that there was no such testimony as you assume by your question.

Mr. Lange: All right, I want to ask the witness now what he means by comparability, if it is applicable.

The Trial Examiner: Well, I think he has pretty well indicated that, Mr. Lange.

By Mr. Lange:

Q. Now, then, you use the example then of the Oklahoma Company as also being a small company.

A. Yes, sir.

Q. But you did not attempt to compare it in so far as its markets and volumes of delivery are concerned with this company.

A. That is true.

Q. Now, in your testimony that you gave on Colorado Interstate Gas Company, you referred to a list or a group of stocks and also a number of companies. Is that the testimony that you refer to in your Exhibit 120, on Page 4, where you say:

"As I understand it, the Colorado Interstate Gas Company case is consolidated for trial with the Colorado-Wyoming Gas Company case, and the record shows I testified on December 2nd, last (see Exhibit No. 93), in this hearing on the rate of return which should, in my opinion, be allowed Colorado Interstate Gas Company. Much of the data used in the preparation of my testimony in that case and which was mentioned then, has been helpful in the consideration of the present question."

Then, somewhere in here you point out the fact that that testimony on certain portions of it should be applied here. Where is that in your exhibit?

Mr. Pickett: The next paragraph from where you are reading, Mr. Lange.

By Mr. Lange:

Q. Oh, yes.

"In that testimony, which with permission of the Examiner is made a part hereof by reference, I pointed out that the percentage of earnings per share of stock in the case of nine natural gas companies averaged 12.21 per cent."

Now, then, do you proceed in the same fashion in connection with the assumption—strike out "in connection"—in the assumption in connection with those stocks listed by you in Exhibit 120 beginning at Page 5 on through 9—I say, do you proceed in your analysis there on the same basis as you did in the testimony on December 2nd?

A. I have given the same calculations of earnings per share on the present market price, and these stocks were given in the previous one, if that answers your question, the previous testimony.

Q. On December 2nd?

A. That's right.

Q. Now, how do you arrive at these averages of, for instance, under each of these groups?

A. Well, there are four, the stocks of four steel companies: Bethlehem Steel, per cent of earnings to price, 15.69; Inland Steel is 9.18 per cent; National Steel, 9.77 per cent, and United States Steel is 12.58 per cent.

Now, if you will add those percentage figures and divide by four you will get the average for the four stocks.

Q. Now, you base these always on per cent of earnings, don't you? Is that the primary factor that the investor has in mind, you say?

A. I think it is one of the important factors.

Q. One of the important factors?

A. Yes.

Q. The earnings of the company—is it always the most important factor?

A. I think it is more important than any other single factor.

Q. More important than any single factor?

A. You sometimes get, in considering any security, you sometimes get a situation where it is pretty hard to tell what is the most important factor. There may be two or three that are more or less of equal importance; so when you are generalizing it is a little bit dangerous to make a statement, but I would say that one of the first things an informed investor wants to know in finding out whether he wants to invest in a certain stock is what is it selling at and what does it earn.

Q. Not concerned with what its dividend record has been?

A. He is concerned with that, too, as well as to try to estimate the future, estimate what hazards there are in that industry, and many other things.

Q. He wants to know what that stock has earned in the past, too, doesn't he?

A. That is true.

Q. And he is interested very frequently in what the dividend record in the past has been?

A. Yes.

Q. And sometimes he gives it primary consideration?

A. I wouldn't say that.

Q. What about the A. T. & T.?

A. A. T. & T.?

Q. Yes, what about its earnings record as compared with its dividend record?

A. Well, in recent years its dividends in some recent years have exceeded the current earnings.

Q. Yes.

A. It was a company with a very large surplus and it maintained its dividends throughout the depression, even when earnings were very bad.

Q. That's right.

A. Absolutely right. In that one particular situation I would say that probably your dividend record there carried as much weight with the investor, or more, than the earnings record.

Q. That's right.

A. I don't think that is true, however, with the informed investor.

Q. Well, how do you distinguish—

A. With the public. That is, as we all know, is one of the most popular stocks in the United States and probably has more stock holders than any other American company.

Q. How do you distinguish between the informed investor and the uninformed investor?

A. It is a question of knowledge.

Q. A lot of them thought they were informed and were not, isn't that true?

A. That is always true.

Q. There is no dividing line?

A. That might be true of this witness, too.

Q. In other words, as to whether the market price appeals to one so-called informed or uninformed investor does not always govern. There may be as much importance attached to the dividend record as there is to an earnings record?

A. Yes.

Q. As far as the investor is concerned?

A. You are entitled to that opinion. I still think that earnings are a little more significant than dividends.

Q. All right, this appraisal that you have here, is this intended for the informed or the uninformed investor?

A. Both classes.

Q. Both classes?

A. Both classes.

I think it is proper to remark here that the only object in calling your attention to the stocks that were in the testimony I gave in the Colorado Interstate case and the testimony is to show that very generally well-known corporations are earning substantial amounts of money, and that in considering a rate of return you have to take into—one should take into account the opportunities in other fields. Now we have tried to pick some highly speculative ones. We did in our mining stocks and oil stocks and we have tried to take other groups of stocks here, all of them good stocks in their particular lines, and it is surprising, I think, to many people the fact that you get such high percentages of earnings today.

Q. Now, on Page 12 you refer to the fact that the company's line crosses the towns—or passes through the towns of Lafayette and Louisville.

A. Passes the towns, yes.

Q. Yes, passes the towns.

A. Very close to the city limits, the town limits.

Q. What size towns are those?

A. Louisville probably is about fifteen hundred people and I think Lafayette is around three thousand five hundred.

Q. What is the extent of the coal industry in those towns?

A. Well, it is about the only thing there is there.

Q. The only thing there is there?

A. Very nearly so.

Q. And you still consider that a significant fact that those two towns are not connected to this line?

A. Well, I should think this line would be very glad to have that additional business if it could get it.

Q. I am not asking you that, but in view of the situation that obtains there, you think it is a strange situation that obtains because that town is not served with natural gas?

A. I don't think it is strange, no.

Q. Well, that's all I want to know about that.

Now, then, in connection with any possible coal competition in—strike that.

You haven't considered coal competition in any of the markets of this company as being a significant factor?

A. I think it was a very significant factor when the line was started.

Q. When the line was started?

A. I think now that the business is attached to the line and in view of the statement of earnings for the past nine or ten years or more, I don't think that you need to give great consideration to that hazard.

Q. And so far as you know the company operations have been such that so far as you know this situation discussed, the average user of gas because of interruptions has not obtained on this system—you state somewhere in your exhibit that the user of gas if his service is interrupted he eventually becomes disgusted?

A. That's right.

Q. Page 16:

"If a domestic consumer cannot secure all the gas he needs he becomes disgusted with the service."

A. That is right.

Q. Do you know of any such situation obtaining on the Colorado-Wyoming?

A. No, I think from what I understand, they have given excellent service.

Q. Oh, yes, and they have an adequate gas supply?

A. It is pointed out, admittedly, that they have an adequate supply of gas up to this time.

Q. Yes.

A. I was trying to make clear a hazard which I feel is in front of this company. It exists. It is an existing hazard, and if because of the growth of Denver and an increase in heating and househeating customers in Denver they get beyond the peak capacity of the pipe line, Colorado-Wyoming Gas Company may have an inadequate supply of gas because they have a junior right to it, which has been emphasized probably sufficiently.

Mr. McCreery: You are speaking of peak day demands?

The Witness: Peak day demands. Should that occur, then they might not be able to give good service to customers and they might lose a great deal of business.

By Mr. Lange:

Q. Well, of course, all kinds of things may happen in any kind of industry, isn't that true?

A. Here is something that is fairly definite.

Q. You speak of the earnings, or what is the situation with reference to the stocks of all of these several companies? Every industry that operates has certain hazards that may occur in the operation of that business, doesn't it?

A. Absolutely right.

Q. And there isn't any kind of enterprise that doesn't have some character of hazard?

A. That is right. That is true.

Q. All right, this hazard that you were just speaking of is, as you stated in your previous testimony this afternoon, is apt to come into the picture around 1945 or later?

A. Or earlier.

Q. Provided, you say, the load at Denver gets so heavy or increases to such an extent that then the hazard would come in the picture earlier?

A. It depends on the time when that growth occurs. It could come earlier, yes.

Q. You have a reference in your exhibit concerning—Page 18:

"It would seem reasonable to estimate that by 1945 there will be 6,000 additional space heating customers in Denver."

Where did you get that figure?

A. I got that figure by pointing out the growth in Denver in the last ten years. There has been an increase in occupied dwelling units of 11,000 and some odd. It is in this statement. It is not on that page. Also, I am informed that there are now nearly 16,000 house heating, space heating customers in Denver. I think that is a growth within the last eighteen months of about 2,000. Therefore, I thought that it was quite conservative to say in the next four years you might average 1500 per annum or come to a figure of 6,000.

Q. In arriving at these estimates with reference to what is going to take place in Denver, did you consult with any of the officials of the Public Service Company of Colorado?

A. Which estimates do you refer to?

Q. Well, let's take this figure of 6,000 additional space heating customers coming on about 1945.

A. I didn't talk to anybody connected with the Public Service Company of Colorado on that subject with the exception of Mr. McCreery who I think is counsel for Public Service Company of Colorado as well as counsel for this company. I talked with Mr. Burgess, and Mr. Davis about that—Mr. Shortess, excuse me.

Q. Did you discuss this particular item with Mr. McCreery?

A. I didn't discuss this item with Mr. McCreery, no.

Q. What other phases of this proposed increase in Denver did you discuss with the Public Service Company of Colorado or any of its officials?

A. Any phase of this growth?

Q. Of this proposed increase or this assumed increase in load in Denver.

A. I think I got my figures from—these growth figures I got from this survey.

Q. Don't you think that the Public Service Company of Colorado would have a more accurate estimate of what is going to happen in that connection?

A. You have just pointed out that this company is owned by the Public Service Company of Colorado.

Q. Yes.

A. Therefore, using your line of reasoning in getting this information from Mr. Shortess and Mr. Davis, was I getting it from the Public Service Company of Colorado?

Q. Well, I want to know whether you went to what you thought was the most accurate source. That is what I want to know.

A. I felt that I was getting the information from an accurate source in getting it from the Colorado-Wyoming Gas Company. I didn't get that 6,000 figure in any way, to answer your question a little more directly, from the Public Service Company of Colorado or any official.

Q. Well, from whom did you get it?

A. I got it in talking to Mr. Shortess and Mr. Davis.

Q. Well, how did they arrive at that estimate?

A. Well, to be more accurate, they arrived at the estimate of the peak demand of 2500 cubic feet per day—Mr. Shortess said that when the load first comes on you get the larger houses and the larger load probably and, therefore, while 2900 feet was the average today that in estimating future growth it would be more conservative to use a figure of 2500 feet. I don't think that he gave me the 6,000 increase in customers. I think that I got that from knowing that the increase in the Public Service house heating load in Denver was about 2,000 in the last year to eighteen months and I figured that with the increase that this survey shows that it was safe to estimate that somewhat less than that—1500, and we are estimating here for a 4-year period ahead, and that is the way I got the 6,000 figure.

Q. Well, where did you get this primary figure as to the increase that is obtaining now?

A. I got that from—you mean the 2,000 figure?

Q. Yes.

A. I got that in my talk with Mr. Shortess in the Colorado-Wyoming office.

Q. Where did he get it?

A. I didn't ask him that.

Q. He doesn't serve in Denver, does he?

A. No, he doesn't serve in Denver.

Q. His company, the Colorado-Wyoming Gas Company, did it spend any money surveying the requirements of Denver or its future requirements?

A. No, not as far as I know. I haven't scanned their expenditures. I don't know whether they did or not.

Q. Then you don't know how he could have arrived at such an estimate?

A. I think he, as the general manager of that company, and interested in his gas supply which is junior to the gas supply of Public Service Company of Colorado, is going to follow the developments of the growth in Denver for his own protection. That's what I think.

Q. Well, he isn't just going to speculate on that, is he?

A. I didn't say that he did speculate. I think he knew what he was talking about.

Q. Do you know whether he based that figure of 2,000 on any kind of definite survey in Denver?

Mr. McCreery: Now, Mr. Examiner, the 2,000 figure was a statement of actual growth in the last year or eighteen months. There is no speculation about that at all. That is a definite figure of growth.

The Trial Examiner: You referred to 2500 feet consumption, did you not?

The Witness: He is now talking about the growth of 2,000 customers which I was told had occurred in the last year to eighteen months in Denver.

The Trial Examiner: Oh, I thought you said Mr. Shortess had given you this 2500 cubic feet.

The Witness: That is true, I did, and that is true, but the question was relating to the 2,000 and not the cubic feet of gas, wasn't it?

By Mr. Lange:

Q. Well, I want to know what information you got from Mr. Shortess as to his estimate of this future requirement for additional space heating in the city of Denver.

A. The information he gave me?

Q. Yes.

A. I have already explained that he gave me the 2500 feet as a reasonable estimate of what the peak demand of each customer put on would be.

Q. In Denver?

A. In Denver, yes.

Q. All right, now,—

A. I have explained how I hit on the figure of 6,000.

(Vol. 29, pp. 4040-4094.)

* * * * *

Q. You say there is some element of risk in that there may be a possibility of the contract between Colorado Interstate and Public Service of Colorado not being renewed?

A. I think to this extent: If this company has gas at that time which it can and desires to sell, I think Public Service Company will want to purchase gas from Colorado Interstate, but the question of price, there is certainly uncertainty whether Colorado Interstate can secure as good a price as they are now getting. Nobody can tell today.

Q. The users in Denver and vicinity have converted all their equipment for the use of natural gas, haven't they?

A. Not all.

Q. Those who are using it, of course, are using equipment usable for natural gas?

A. That's right.

Q. Where is Public Service Company of Colorado going to get its gas if they don't get it from Colorado Interstate?

A. Gets natural gas?

Q. Yes.

A. They could, of course, go back to manufactured gas if they had to. They wouldn't do it if the natural gas supply were available. There are eight years yet in which new discoveries might come in.

Q. Where?

A. In Colorado.

Q. Do you know of any?

A. Or it might be possible to get it in Wyoming, because there is a very large amount of gas in Wyoming for which there is now no market, or it is conceivable they could get it from the Hugoton field.

Q. Where is the Hugoton field located?

A. In Kansas.

Q. About what distance is that from Denver?

A. Well, roughly, three hundred miles.

Q. Three hundred miles?

A. Yes.

Q. And you know, of course, that such company would have to apply for a certificate of public convenience and necessity?

A. I do.

Q. They would have to make a pretty detailed showing, wouldn't they?

A. Yes, but supposing they said to the Public Service Company, somebody came in—you and I, and we said, "We'll bring gas from the Hugoton field," and we make the arrangements down there satisfactorily, and we come up here to the City Council here and say, "We'll sell you gas at 30 cents."

Q. All right.

A. And Colorado Interstate says, "No, our gas is worth 35 cents. We can't afford to sell it any cheaper," then you go to the Federal Power Commission and say, "We want a certificate." I don't believe under the wording of that Act they would have much trouble in getting that certificate, would they?

Q. You mean you could get the gas at Hugoton field and sell it at the gate here at 30 cents?

A. That is an illustration of what might happen. I made no investigation as to whether they could sell it at 50 cents or 25 cents. I can't testify on that without going into an investigation.

Q. What is the illustration worth if it can't be followed through?

A. To show a hazard in spite of the fact that a certificate has to be obtained from the Federal Power Commision.

Q. A hazard to the Colorado Interstate?

A. Yes, of losing this business.

Q. Then you think that in your experience as a man who has dealt with the securities of natural gas pipe line companies that they could construct a line from the Hugoton field and transport gas into Denver and sell it at 30 cents and make sufficient on it that they can finance such a project?

A. I didn't say that at all. I said if this contract had run out and if we found by reason of the purchases to be made down there and by a careful investigation of the construction costs of such a line, if we found we could sell it at 30 cents, I thought we could get a certificate from the Federal Power Commission.

Q. I am asking you now, as a man that has had experience in selling securities of this character, whether that basis that you gave, on that assumption, that they could construct a pipe line into Denver from Hugoton and make a showing that they could sell gas at the gate here at 30 cents, the project would be feasible, economical, and that you could get investors to invest in such an enterprise.

A. I certainly made no such statement as that, and I didn't make the assumption that it could be done. I said, if it could be done or if the Public Service Company could get its gas from Wyoming or perhaps in Morgan County, Colorado where there is some gas, or some other place, or we may open up some gas around Fort Morgan. There are a lot of possibilities that may take place before 1948.

Q. There is a lot of possibilities of anything liable to happen, but the only certainty about there being an adequate supply of gas in some other area is the Hugoton field at present?

A. I didn't say that. I say, there is just as good a chance of getting the gas in Wyoming?

Q. There is? Where?

A. Southern Wyoming, I believe there is—Hiawatha, North, South & Middle Baxter Basin, Powder Wash Dome.

Q. Would you advise investors to invest in building a pipe line from there into Denver now?

A. I wouldn't do it without a great deal of study and getting expert engineering advice. That hasn't been done.

Q. In other words, you would know about what the reserves and adequacy and the probable life of them would be?

A. I would attempt to arrive at that information, certainly.

Q. And how certain you would be of the Denver market, too, wouldn't you?

A. Certainly.

Q. Both of those would have to be pretty definitely shown

to you before you would attempt to advise anybody of the feasibility of such a project or to put any money into such a project?

A. I certainly agree with you on that.

Q. You haven't made that investigation with reference to either piping it from Wyoming or from Hugoton, have you?

A. No.

The Trial Examiner: Mr. Bosworth, some mention I believe was made by you of the contract with Canadian River Gas Company by Colorado Interstate where the cost of the gas is based on some sort of a cost arrangement.

The Witness: Yes, sir.

The Trial Examiner: Well, in view of that, do you think it would be possible for production to come out of the Hugoton field at any less cost to the pipe line than the cost to the Colorado Interstate?

The Witness: I don't think so.

The Trial Examiner: Don't you think that the Colorado Interstate Gas Company in view of its trained personnel and its management and its present experience could transport this gas at least as cheaply as any company that would come out of the Hugoton field?

The Witness: I should think so, absolutely.

(Vol. 20, pp. 2837-2842.)

* * * * *

Q. In other words, where a company produces its own gas and has an adequate supply and owns its own pipe line system and is in control of its market to deliver?

A. That is right.

Q. That is the best possible situation?

A. The best picture you can get.

Q. Isn't that one that obtains right here?

A. No, indeed.

Q. In what way does it not?

A. The Colorado Interstate Gas Company does not own its distributing system.

Q. It doesn't have to actually distribute it if it has markets that it is pretty certain of, isn't that the situation here?

A. "Pretty certain" isn't the same as "certain." Suppose they did own the distributing system in Denver—they would have complete control of the marketing policy. They can put on a drive if they thought it of advantage to get more business. That sort of thing now is in the hands of another company.

Q. Do you know—

A. Now that—I beg your pardon.

Q. Go ahead.

A. Go on.

Q. Do you know anything about this fund that Public Service Company of Colorado is supposed to have available for the developing of its distribution market here?

A. They try to encourage distribution by making a real inducement for them to go out and get it. Whether that could be done as economically in that arangement as it could be done if they owned the same system, I can't testify on that, but I know it is always of advantage for a concern to be completely integrated in nearly every line of business. I think you will agree that if you were considering an oil company from an investment standpoint, not a speculative standpoint, that we would rather own the securities of a company that produced its oil and conveyed it in its own pipe lines and refined and marketed about the same amount of oil it produced. Take the Gulf Oil Company. It was in about that position a few years ago. Pro ration has upset it some but it used to produce, convey, refine and market through its own stations and it hardly knew what was going on with its competitors, which in itself is a much stronger situation.

Q. It is the most ideal situation?

A. That is what I am trying to say. Thanks.

Q. Now, you are still of the opinion that the ideal situation doesn't obtain here in what respects?

A. Because this company doesn't exactly own its own gas supply.

Q. Because it doesn't exactly own its own gas supply?

A. Yes, sir. Colorado Interstate Gas Company does not directly own its own gas supply. It certainly doesn't own the distributing systems that sell it directly to the consumer.

Q. Wasn't this project constructed intended to be one enterprise from the very conception of it?

A. I don't think so at all.

Q. You don't think so at all?

A. I am sure it wasn't.

Q. You don't know whether or not it is controlled by the same people?

A. I have testified on that. You mean that the Public Service Company is controlled by the same people?

Q. I am talking about the source of supply now.

A. Oh!

Q. I am talking about the Canadian River's production of gas as being available to Colorado Interstate for its entire requirement.

A. As I understand it, by contract the Colorado Interstate Gas Company has tied up all of the production of the Canadian River Gas Company. I wouldn't say "tied up," but it has contracted to purchase that production, all of that production that it can find a market for. It in turn sells part of the gas to the Natural Gas Pipeline Company and part of it to other distributors we are talking about.

Q. Where does your element of uncertainty between the two come in? As between the Colorado Interstate Gas Company not having the same ideal situation as if it itself were out in the Amarillo field producing that gas?

A. You have a separate company in between.

Q. It is purely a different corporate entity?

A. Purely a different corporate entity but I wouldn't say that is the only difference.

Q. All right, in what other respect is it different?

A. The main respect I think is that this company isn't in the ideal situation we are talking about, due to the fact that it does not control its distribution—does not own and control its distribution facility.

Q. We haven't gotten to that point on this question. You presented one where the pipe line company produces its gas. Isn't it a fact that in this instance the same interest that controls Colorado Interstate Gas Company controls Canadian River Gas Company?

A. I think that is probably true. I can't testify as to that control.

Q. Then you have one other factor entering into that ideal situation remaining open and that is the marketing of the gas?

A. That is right.

Q. Now, then, you have already stated that the Colorado Fuel and Iron Company and Denver constitutes the major portion of the Colorado Interstate Gas Company's market by a large and major portion?

A. That is right.

Mr. Brock: The Denver line?

Mr. Lange: The Denver line.

The Witness: That is right.

By Mr. Lange:

Q. You have the delivery to the Colorado-Wyoming Gas Company?

A. Yes.

Q. Then those three constitute almost what percent of the total market of the Colorado Interstate Gas Company?

A. I don't know that figure because I don't know it.

Q. Roughly, it constitutes the great bulk of the market of that company, doesn't it? Those three gates?

A. Yes, I am sure of that.

Q. What element of uncertainty is there with reference to those three deliveries?

A. Because they do not control the marketing policies. They are wholesalers and it stops there. If they are a retailer and do a good job, fine; if he doesn't do a good job, what can you do about it?

Q. You are then viewing it in the light that the affiliation that exists between them has no bearing as to the certainty and continuity of that market?

A. I am not assuming that there is any affiliation that exists except the contractual relationship.

Q. Are you assuming that there is none existing?

A. As far as I know there is none existing aside from the contractual relationship; the fact that the Public Service Company of Colorado owns 15 per cent of the stock in the Colorado Interstate pipe line.

Q. Very well. On the schedule—

A. I would like to—

Q. Yes.

A. May I make one remark?

Q. Yes.

A. I had forgotten for the moment, but as I understand it, the Canadian River Gas Company is 100 per cent owned by the Southwestern Development Company. The Southwestern Development Company owns 42½ per cent of the stock of Colorado Interstate Gas Company, so there is a relative difference, I think, between the situation that would exist if the Colorado Interstate Gas Company owned a hundred per cent of Canadian River and the existing situation.

Q. How did you arrive at that conclusion that the difference would exist?

A. As I understood the question you asked me, the purport was "Why isn't it just the same thing as Colorado Interstate owning its own gas supply?"

Q. That is right.

A. I say that to me it is a little bit different because if Colorado Interstate owned 100 per cent of Canadian River, I would agree with you; it would be for practical purposes another thing, although there might be another corporate entity. Here Colorado Interstate doesn't own Canadian River at all. It is 42½ per cent of the stock that is owned by a company which owns 100 per cent of Canadian River, or thereabouts, or there could be a conflict of interests arise that would be very different than if the situation were perfectly simple in that Colorado Interstate owned its Canadian River stock 100 per cent; if they owned 100 per cent of the Public Service Company and 100 per cent of Pueblo Gas and Fuel Company, and if they had no security outstanding, it would be a clean operating company to my mind.

Q. You say there might be a conflict of interest?

A. I would think so.

Q. Do you know of any that has occurred since the project has been in operation?

A. No, sir.

(Vol. 20, pp. 2857-2863.)

Commission Exhibit No. 225 (Appendix this Record).

Commission Exhibit No. 225A (Appendix this Record).

Commission Exhibit 225, 225A.

CHARLES W. KNAPP, JR., a witness for the Commission, presented two exhibits, No. 225 and No. 225A, with respect to rate of return generally, and testified in relation thereto in Volume 74, pages 10,794-10,926; and on cross-examination by Colorado Interstate Company in Volume 83, pages 12,301-12,392; and on cross-examination on behalf of Colorado-Wyoming Company in Volume 83, pages 12,392-12,411.

The witness testified, as follows:

Q. Please state your name.
A. Charles W. Knapp, Jr.
Q. What is your occupation?
A. I am an accountant.
Q. By whom are you presently employed, Mr. Knapp?
A. By the Federal Power Commission.
Q. In what capacity?
A. As principal Examiner of Accounts.
Q. How long have you been so employed?
A. Since December 1938.
Q. December 1938?
A. That is correct.
Q. In what particular branch of work?
A. Well, my duties—in the first place, I am employed by the Division of Finance and Statistics.
Q. You have been in that particular division since your employment by the Federal Power Commission?
A. That is correct.
Q. Do you have with you a statement showing your qualifications in connection with your professional work?
A. I do.
Q. Will you please read that into the record, Mr Knapp?
A. "I commenced work in the year 1920. By 1925 I had taken business courses and completed my high school education through attendance at evening classes. In the fall of 1927 I entered the University of Vermont and studied for the degree of Bachelor of Arts and graduated with that degree in 1931. I majored there in languages and philosophy and was elected to membership in Phi Beta Kappa in my junior year. Following graduation I studied accounting, sat for the C. P. A. examinations and in 1934 obtained a cer-

tificate from the State of New York as a certified public accountant. I am a member of the New York State Society of Certified Public Accountants.

"My experience began in 1921, when I was employed by Babcock and Wilcox Company as a cost ledger clerk. Thereafter I became bookkeeper for a wholesale lumber concern. In January 1925 I obtained employment with Peat, Marwick, Mitchell and Company as a junior accountant, and later during the same year worked on the staff of a smaller public accounting firm, and afterwards as bookkeeper for a silk manufacturing concern. The following year I was again employed by Peat, Marwick, Mitchell and Company in their income tax department for approximately a year, and then accepted a position as an accountant for a large wholesale bakery company, which position I resigned in the fall of 1927 when I entered college.

"For three years while attending college I was employed on the staff of the firm of Francis C. Derby Company, public accountants in Burlington, Vermont, and continued with that firm for over a year after graduation. In the fall of 1932 I was employed by the firm of Arthur Anderson & Co., as a semi-senior accountant, but shortly thereafter my status was changed to that of senior accountant. In the fall of 1933 and thereafter while with Arthur Anderson & Co. I was in charge of audits of the eastern telephone operating subsidiaries of probably the largest independent system of telephone utility companies in the country, and was also in charge of holding and sub-holding company audits and consolidation work for that system. I was also engaged on audits of electric, gas and water utilities during the same period.

"In the fall of 1935 I was employed as an accounting expert by the Federal Communications Commission on its investigation of American Telephone and Telegraph Company. While with that Commission I made an analysis of the principles and methods of consolidation employed in preparation of the published financial statements of the Bell System. I also prepared historical analyses and reports on investments of American Telephone and Telegraph Company in its telephone operating subsidiaries, and collaborated in

the preparation of a report on the financial history of the Western Electric Company, together with other studies and reports.

"In June of 1937 the telephone investigation was terminated and I obtained employment as a senior accountant with the public accounting firm of Allen R. Smart and Company. While employed by this firm I was in charge of the annual audit of United Aircraft Corporation and subsidiaries for the year 1937, and conducted a comprehensive investigation of that client's system of internal control.

"In April of 1938 I resigned to engage in private business as a public accountant, and in December 1938 accepted my present position with the Federal Power Commission. Since that time I have been employed in the Division of Finance and Statistics of the Bureau of Accounts, Finance and Rates with the title of Principal Examiner of Accounts and have been engaged in the study and preparation of reports on accounting and financial aspects of applications filed with the Commission in connection with sales of properties, mergers and consolidations and issuance of securities.

"I have also been engaged in studies and in the preparation of exhibits on the subject of rate of return and have testified as a witness for the Commission on this subject in five rate proceedings, namely, the Safe Harbor Water Power Corporation, Docket No. IT-5494, the Natural Gas Pipeline Company of America and Texoma Natural Gas Company, Docket Nos. G-109 and G-112, the Moline-Rock Island Manufacturing Company, Docket No. IT-5517, the New York State Natural Gas Corporation, Docket Nos. G-114 and G-125, and the Chicago District Electric Generating Corporation, Docket No. IT-5500."

Q. Have you completed the reading of the statement showing your qualifications, Mr. Knapp?

A. I have.

Q. Mr. Knapp, I notice from your statement of qualifications that you have heretofore prepared exhibits on rate of return?

A. That is correct. I have either prepared them or had them prepared under my supervision.

Q. You have given testimony in connection with such exhibits?

A. That is correct.

Q. Have you also in connection with the present proceeding prepared a rate of return study and an exhibit for such study?

A. I have.

Q. I will ask you whether the exhibit you so prepared was in two parts, marked Part I and Part II?

A. It is.

Q. Is this the exhibit I now show you?

A. That is the exhibit.

Mr. Lange: Mr. Examiner, we will ask the reporter to please identify the exhibit, being in two parts. I would suggest that Part II be made a part of the exhibit.

The Trial Examiner: I am wondering, Mr. Lange, if it wouldn't be well to just mark both parts of Exhibit No. 225? Does the exhibit show it is Part I and Part II?

Mr. Lange: It does.

The Trial Examiner: I think that would be less confusing.

Mr. Lange: Perhaps it can be marked Exhibit 225 and Exhibit 225-A.

The Trial Examiner: Very well. Part I of the Rate of Return Study will be marked as Exhibit No. 225; Part II, Rate of Return Study, will be marked for identification as Exhibit No. 225-A.

(Exhibits 225 and 225-A, Witness Knapp, marked for identification.)

By Mr. Lange:

Q. Mr. Knapp, did you also in connection with the preparation of that exhibit prepare a written statement with reference thereto?

A. I did.

Q. Is this the written statement I now show you?

A. Yes, that is the written statement.

Q. Will you please begin the reading of that statement into the record?

Mr. Spencer: Before he commences—were you finished, Mr. Lange?

Mr. Lange: Yes.

Mr. Spencer: Before he commences the reading, Mr. Lange, I assume that our past practice may be followed here, that is to say, the witness may proceed to read his statement without interuption, reserving the right of counsel for respondents to move to strike all or any part of it subsequently?

The Trial Examiner: It will be so understood, Mr. Spencer.

Mr. Lange: That is correct.

Q. Now, Mr. Knapp, will you now proceed with the reading of your written statement?

A. "Introduction

I have been instructed to prepare a rate of return study setting forth the more important facts and factors which should be considered in arriving at a fair and reasonable rate of return for the Canadian River Gas Company, Colorado Interstate Gas Company and Colorado-Wyoming Gas Company.

Definition of "Rate of Return"

The "return" received by a public utility consists of the amount of revenue remaining after deduction of necessary and reasonable operating expenses, rents, taxes, and depreciation and amortization accruals, but before provision for interest, dividends, or additions to corporate surplus. This "return" is ordinarily conceived as the product of a "Rate base" times a given "rate of return." Conversely, the "Rate of Return" may be defined as that percentage rate which, when applied to the rate base, will yield the total, over-all return for the particular utility.

Statement of Principles

It is generally conceded that the basic principles to be considered in determining the reasonableness of a particular rate of return were stated by the Supreme Court in the general rule laid down in the Bluefield decision as follows:

"What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally."

Another fundamental principle was stated by the Supreme Court in United Railways v. West in the following words: "What will constitute a fair return in a given case is not capable of exact mathematical demonstration."

Although other factors doubtless have been considered by various courts and commissions, the underlying principles to be considered in connection with the problem of rate return are probably nearly all covered in the above citations from holdings of the Supreme Court.

Identification of Rate of Return Study.

Based on consideration of the underlying principles set forth above I have made certain studies and have either prepared or have directed and supervised the preparation of certain charts and schedules which have been assembled in two bound volumes, designated as Part I and Part II, respectively, for presentation in the present proceedings as exhibits entitled "Rate of Return Study."

Part I contains data on general interest rates and yields, utility interest rates and yields and recent financing, general

economic conditions, comparative stability of earnings of public utilities and other forms of enterprise, local conditions in the general area of ultimate consumption of natural gas supplied through the pipe line facilities of the companies involved in the present proceedings, and data reflecting the present situation with respect to idle investment funds and the factors contributing thereto.

Part II of the rate of return study, besides containing some general statistics of the natural gas industry, presents facts concerning the ownership; issuance, prices and yields of securities of natural gas pipe line companies.

Rate of Return Study—Part I.

From the Table of Contents of Part I of the study, it will be seen that the charts and schedules contained therein are arranged in several groups or sections. These sections, in the order of their appearance, are as follows:

1. General Interest Rates and Yields; which relates to yields on investments in bonds of domestic corporations and Treasury bonds, and interest rates on 4-6 months commercial paper and 60-90 day time loans.

2. Utility Interest Rates and Yields and Recent Financing; pertaining to interest rates and yields on utility securities and containing information on recent financing by public utilities in general and, in addition, data compiled separately covering new financing by electric utilities during the period from 1935 through September, 1940.

3. Economic Conditions; which gives a general picture of economic conditions both currently and for the period since 1920 as indicated by indexes of wholesale commodity prices, general business activity and, for the period since 1929, data on national income.

4. Comparative Risk; this section giving an indication of the relative risks of public utilities as compared with other forms of enterprise.

5. Local Conditions; containing data on rediscount rates of the various Federal Reserve Banks, and averages of rates charged customers by banks in principal cities of the country. This section also contains data comparing economic

conditions throughout the nation in recent years with those in the State of Colorado and adjacent territory.

6. Idle Money Factors; which relates to the present situation respecting the volume of idle investment funds and the factors contributing to the growth of such funds in recent years.

As previously indicated, each of the sections described above contains data presented through the medium of charts and schedules. The schedules support the charts or, in other words, contain the detailed information on which the charts are based in order to facilitate the reading of the charts. For example, where a schedule number appears on the same line as a chart number in the Table of Contents, the schedule and chart should be read in conjunction with one another. In certain instances, a schedule number appears without a related chart number, in which case the schedule should be read alone.

General Interest Rates and Yields.

Moody's Investors Service publishes a considerable amount of financial data and its publications are accepted and relied upon generally for purposes such as are now being considered. Chart 1 shows Moody's composite bond yield average based on bonds of 120 domestic corporations which carry the four highest bond ratings assigned by Moody's publication. The chart also shows the average yield for the 30 bonds included in each of the four rating groups, namely, Aaa, Aa, A and Baa. There are not always 120 corporations in Moody's compilation and there are not 120 corporations at this time, principally because of the difficulty of finding industrial bonds of the higher ratings.

Chart 1—Chart 1 reflects the range of bond yield averages since 1920. The composite average yield for all bonds included in the data had reached by the end of 1936 the lowest level recorded since 1920, namely, 3.67 per cent. After rising during 1937 and the early part of 1938 to 4.50 per cent in April 1938, a decline took place which, by August 1939, had carried the composite average down to the 1936 low point.

The month of September witnessed a sharp rise resulting

from the outbreak of war in Europe. The composite average moved from 3.67 per cent to 3.95 per cent in that month. Between September 1939 and the year-end, the average declined to the August level.

From December of last year through April of this year the composite average declined from 3.69 per cent to 3.54 per cent. Following the invasion of the Low Countries in May, however, the increase in bond yield brought the average for May to 3.65 per cent, and for June to 3.72 per cent. By August the average had declined to the April level, and for September the composite yield was at a record low point of 3.50 per cent.

Since Chart 1 shows the individual rating group averages from which the composite average is derived, it can be seen that by September 1940 the average yields for bonds of Aaa, Aa and A rating, after advancing about 0.10 per cent in May and June, had also declined to new low levels, these being considerably lower than the levels established in 1936. For example, the low points in 1936 as compared with the yields shown for September 1940, are as follows:

Aaa bonds, 1936—3.10 per cent; September 1940—2.82 per cent;

Aa bonds, 1936—3.28 per cent, September 1940—3.01 per cent;

A bonds, 1936—3.78 per cent, September 1940—3.52 per cent.

On the other hand, the risk factor associated with bonds of Baa rating is reflected by the more pronounced rise in the average yield on such bonds commencing in the latter part of 1937 and culminating in the early part of 1938 than was the case for bonds of higher rating.

The 1936 low point for Baa bonds was 4.52 per cent, the yield subsequently rising to 5.16 per cent in September, 1937, and to 6.47 per cent in April 1938. The yield declined rapidly during the remainder of 1938 to 5.27 per cent in December 1938.

During 1939 the average yield on Baa bonds declined still further but, in December 1939, at 4.92 per cent was still 0.40 per cent above the 1936 low point, in contrast with

the experience of bonds of higher grade. The average yield on Baa bonds continued to decline during the first four months of 1940, but in May increased sharply by 0.20 per cent and in June advanced 0.17 per cent, resulting in a rise of 0.37 per cent over the April average.

This rise compares with that of about 0.10 per cent in the average yield for the higher grade bonds in the same two-months period. From June to September, the Baa average reflected a more substantial decline than was recorded for higher grade bonds with the result that the September average of 4.66 per cent was only 0.14 per cent above the 1936 low point, a decline of 0.26 per cent from the average for December 1939.

Also reflected by Chart 1 is the virtual collapse of the bond market which occurred in 1931 and the continuation of an extreme degree of weakness thereafter for the greater part of three years. In this period bonds most severely affected were those regarded as subject to greater investor risk. It will be observed, for example, that while the yields for Baa and A bonds reached 11.63 per cent and 8.5 per cent, respectively, in this period, the highest yield recorded for Aa bonds was 6.60 per cent and for Aaa bonds was only 5.41 per cent.

The data upon which Chart 1 is based appear in Schedule 1 which will be found immediately following the chart. Page 1 of Schedule 1 contains the composite monthly and annual average yields for each year commencing with the year 1920 on bonds of 120 domestic corporations including bonds of the four highest Moody bond rating groups, namely, Aaa, Aa, A and Baa.

Similarly, Page 2 contains the average yield on bonds of Aaa rating, Page 3 on bonds of Aa rating, Page 4 on bonds of A rating and Page 5 on bonds of Baa rating. Each rating group includes, so far as they are available for inclusion, 30 domestic corporation bonds.

A footnote on Page 5 indicates the source from which the data were taken. The lines on the chart can be readily associated with the data contained in the schedule. For example, Page 1 of Schedule 1 shows that the composite yield on bonds of 120 domestic corporations was 4.50 per cent in April 1938, as reflected on Chart 1.

Page 6 describes the mathematical basis of the yield computations. Monthly yield averages are unweighted arithmetic averages of daily yields computed on the basis of closing prices and calculated to maturity dates. For each rating group the average is based on the bonds included in that group and the composite average is the average of the four rating group averages.

Commencing on Page 6 and continuing on Page 7 of Schedule 1 will be found the key to Moody's bond ratings. For example, bonds of Aaa rating are those judged as representing bonds of the best quality, generally referred to as "gilt edge" because they carry the smallest degree of investment risk. Interest payments on such bonds are protected by large or exceptionally stable margins, changes in which are most unlikely to impair the fundamentally strong position of such issues, and principal is secure.

Bonds of Aa rating rank high but lack one characteri[illegible] or another of the highest type of bond investment. Together with the Aaa group they comprise what are generally known as high grade bonds. Bonds carrying the A rating possess many favorable investment attributes and are to be considered as higher medium grade obligations. Baa bonds are those considered as lower medium grade obligations, i. e., they are neither highly protected nor poorly secured. Such bonds, besides lacking outstanding investment characteristics, in fact exhibit speculative characteristics as well.

Pages 8 to 11, inclusive, of Schedule 1 contain lists of the bonds currently used in Moody's bond yield averages according to rating groups. Aaa bonds, grouped according to classification as Industrials, Railroads and Public Utilities are listed on Page 8, Aa bonds are similarly listed on Page 9, A bonds on Page 10 and Baa bonds on Page 11.

It will be noted that the lists of Industrial Aaa and Aa bonds contain fewer than ten bonds, there being only four bonds in the Aaa group, and four in the Aa group. Similarly, there are only five Railroad bonds in the Aaa group. Moody's explanation, as given on Page 6 of Schedule 1, is that it has not been possible since 1933 to find a sufficient number of representative bonds for these rating groups. However, as previously indicated, the averages for these

groups are given equal weighting in combining them with other group averages.

Chart 2—The purpose of the next two charts is to show that the trend of bond yields is not an isolated phenomenon but is part of the movement of interest rates in general, as indicated by the broadly similar patterns observed in the trend of interest rates on 4-6 months commercial paper and on 60-90 day time loans, as well as in the yields on U. S. Treasury bonds. In other words, the purpose of these two charts is merely to furnish added data regarding the movement of interest rates as such, and not to offer short-term money rates or yields on Treasury bonds, as a measure of a proper rate of return.

Chart 2 shows interest rates on 4-6 months commercial paper and 60-90 day time loans and is based on averages computed by Standard Statistics Company from data appearing in the Commercial and Financial Chronicle. The 4-6 months paper is issued by such seasonal borrowers as Armour's and Swift's and is sold to banks through dealers. The 60-90 day time loans represent bank loans to New York Stock Exchange brokers and are secured by mixed collateral.

Although the 4-6 months paper, contrary to what might be expected, currently carries a lower rate than the shorter-term time loans, there are two factors which may be assumed to effect a higher rate for 60-90 day loans than for 4-6 months paper. These are, first, that the rate for 60-90 days loans is assumed to be more or less fixed by agreement between banks and, second, that a service charge element is presumed to exist by reason of the allowance of substitutions of collateral in connection with brokers' loans.

Current interest rates on both types of loans are extremely low as compared with the levels existing during the period 1920 to 1929. For example, by reference to Schedule 2 it may be seen that the rate on 60-90 day time loans varied from 8.72 per cent in 1920 to as low as 2.52 per cent in 1924 and rose to 8.94 per cent in 1929. The average for that ten-year period was 5.40 per cent, as compared with 1.45 per cent for the ten years following 1929. The rate on 60-90 day time loans now stands at 1.25 per cent, but for a

brief period was 0.50 per cent in 1932 and 0.25 per cent in 1935.

On 4-6 months commercial paper, the average rate for the ten-year period 1920-1929 was 5.00 per cent, while since 1929 the rate has averaged approximately 1-2/3 per cent. The rate on this type of paper remained unchanged at 0.75 per cent from November 1938 through January 1940, but in February declined to 0.67 per cent and in March to 0.63 per cent. Since March the rate has remained unchanged.

Chart 3—Chart 3 shows the yield on U. S. Treasury Bonds due or callable after twelve years, as computed by the U. S. Treasury Department for the period since 1920. This chart portrays a somewhat similar situation as that shown on Charts 1 and 2, the trend being generally downward in recent years.

The low point for the period 1920-1936 was reached about the end of 1936 with a yield of 2.51 per cent, as indicated in Schedule 3. Increasing by April 1937 to 2.80 per cent, the yield subsequently declined, reaching a record low of 2.13 per cent in June 1939.

In September 1939, as in the case of domestic corporation bonds, the yield on U. S. Treasury Bonds reached the highest level of the year, 2.65 per cent, but subsequently declined and for the month of December 1939 was 2.35 per cent. The decline continued in 1940 and in March and April the yield averaged 2.25 per cent. An increase of 0.13 per cent occurred in May 1939, in line with the increase previously noted for corporate bonds in the Aaa, Aa and A groups, but this increase was later cancelled and in August the average again stood at 2.25 per cent. For the month of September, not shown on the chart, the average was 2.18 per cent, and for the week ending October 19, 1940, it was 2.09 per cent, indicating a decline to new low levels.

Undoubtedly the lower yield recorded for Treasury bonds in comparison with Moody's average yield on corporation bonds of Aaa rating may be attributed to the low risk associated with these securities and to the fact that income derived therefrom is in part exempt from taxation.

From the data presented in this section, it is apparent

that in recent months interest rates and yields, generally, have reached the lowest levels witnessed in many years; in fact, they probably have not been lower at any time in the history of the country.

Utility Interest Rates and Yields and Recent Financing.

This section deals with the cost of money as indicated by bond yields, preferred stock yields, and common stock earnings-price ratios, with particular reference to public utilities.

Chart 4—Chart 4 shows Moody's bond yield averages commencing with the year 1934, based on the bonds of 40 public utilities according to Moody's bond ratings. In contrast with Chart 1, which shows declines in yield below the 1936 level only for domestic corporation bonds of the three highest Moody's rating groups, Aaa, Aa and A, Chart 4 shows declines below that level through September 1940 for public utility bonds of all four rating groups. The September 1940 yield averages for public utility bonds in the respective rating groups, as shown in Schedule 4, Pages 1 and 2, are as follows:

Aaa—2.74 per cent, Aa—2.88 per cent, A—3.18 per cent, and Baa—3.94 per cent.

Chart 4 is supported by Schedule 4. The companies whose issues are currently used in computing the average yields shown on the chart are listed in Page 3 of the schedule.

It will be noted by inspection of the annual averages shown on Pages 1 and 2 of Schedule 4 that the average yield on public utility bonds in each rating group declined substantially between 1934 and 1939, the comparative yields and declines being as follows:

Aaa—1934 average, 3.92 per cent—1939 average, 2.88 per cent, a decline of 1.04 per cent; Aa—1934 average, 4.66 per cent—1939 average, 3.03 per cent, a decline of 1.63 per cent; A—1934 average, 5.55 per cent—1939 average, 3.52 per cent, a decline of 2.03 per cent; Baa—1934 average, 7.49 per cent—1939 average, 4.50 per cent, a decline of 2.99 per cent.

Relatively, these declines range from 26.5 per cent for Aaa bonds to 40 per cent for Baa bonds, indicating that investors in public utility bonds have more recently been willing to accept a relatively lower rate of compensation than in 1934 in proportion to the degree of risk assumed.

Another method of measuring the willingness of investors to accept relatively less compensation in proportion to the degree of risk assumed is to compare the ratio of the yield on Baa bonds to that on Aaa bonds. Such ratios computed for the years 1934 to 1939, inclusive, and for the month of September 1940 are as follows:

Period	Baa Yield	Aaa Yield	Ratio of Baa to Aaa Yield
Year 1934	7.49 per cent	3.92 per cent	1.91
Year 1935	5.56 per cent	3.52 per cent	1.58
Year 1936	4.67 per cent	3.21 per cent	1.45
Year 1937	5.09 per cent	3.21 per cent	1.59
Year 1938	5.26 per cent	3.03 per cent	1.74
Year 1939	4.50 per cent	2.88 per cent	1.56
Sept. 1940	3.94 per cent	2.74 per cent	1.44

From the foregoing, it appears that in 1934 the yield demanded by investors on Baa bonds was 1.91 times that required on Aaa bonds. The ratio declined to 1.45 in 1936, increased to 1.74 in 1938, and dropped back to 1.56 in 1939. In September 1940, the ratio stood at approximately the same low level for the period as that recorded in 1936.

Chart 5—Chart 5 shows Moody's bond yield averages for the period since 1920 based on bonds of 120 domestic corporations classified into three groups, namely, railroads, public utilities and industrials. The general trends reflected in this chart are similar to those described in connection with the previous charts.

Starting from the low point for all groups reached in 1936, the average yields increased until midyear of 1938. The rise in yield for railroad bonds in this period was much more abrupt than in the case of public utilities and industrials and carried the yield on railroad bonds to 5.75 per cent, public utility yields increasing only to 4.11 per cent and industrials to 3.55 per cent.

From these points the trend toward lower yields has continued with minor interruptions for all groups, but only in the case of public utilities and industrials have the yields established new low levels. For example, the August 1939 figures were 3.40 per cent (1936—3.69 per cent) for public utilities and 3.21 per cent (1936—3.37 per cent) for industrials.

Railroad yields in August averaged 4.41 per cent, which was still considerably higher than the 3.95 per cent yield recorded for January 1937, reflecting the greater degree of risk attaching to railroad securities from the viewpoint of investors. The rise in yields which occurred in September 1939 had been cancelled before the year-end, and subsequently through April 1940 all yields registered further declines, public utility and industrial bond yields falling to the then lowest levels on record, while railroad bond yields still remained 0.38 per cent above the January 1937 low point.

In May and June, following the invasion of the low Countries, an abrupt rise in yields of all bonds occurred, but this rise was subsequently cancelled, except in the case of industrial bonds, railroad bond yields declining through September to a level only 0.28 per cent above the previous low point in the period since 1920, while public utility bond yields were established at the lowest level on record. The September 1940 averages, as shown in Schedule 5, Pages 1, 2 and 3, were as follows:

Industrials—3.10 per cent, Public Utilities—3.19 per cent, and Railroads—4.23 per cent.

By inspection of the annual averages shown on Page 2 of Schedule 5, it will be seen that the average yield on 40 public utility bonds declined from 6.30 per cent in 1932 to 4.43 per cent in 1935, and levelled off at approximately 3.90 per cent during the years 1936, 1937 and 1938. For 1939 the average was lower, at 3.48 per cent, than for any year since 1920, while the average for the first nine months of 1940, 3.28 per cent, was well below the 1939 average.

Chart 5 indicates that the experience of the industrial group has been somewhat more favorable than that of the

public utilities, especially in recent years, but this may be due in part to the limited number of industrial bond issues available for inclusion in the two highest Moody bond rating groups.

Schedule 5 gives the monthly and annual average yields for the three groups of corporation bonds on which Chart 5 is based, together with a list of the bonds currently included in the groups.

Chart 6—Chart 6 shows annually, for the period since 1921, Moody's weighted averages of yields on newly issued domestic bonds of industrials, railroads, and utilities. The averages shown are based on yields at offering prices of newly issued bonds, calculated to maturity and weighted by the amounts of all new issues floated in any given classification or period. The classification "utility bonds," which includes bonds of light, power, and gas utilities, consists wholly of operating companies. The yields indicated in Chart 6 are not, of course, representative of bonds of the same companies or issues at any one date or during any given period.

This chart shows a generally downward trend since 1921 for all classes of companies in yields on newly issued bonds. The trend was interrupted in 1929 and 1932, but commencing in 1933 and continuing until about 1936 the downward trend was greatly accelerated. In 1937 and 1938 the yields levelled off somewhat, but in 1939 a substantial decline occurred, particularly in yields on new railroad and industrial bond issues.

The 1939 decline in yield on newly issued light, power, and gas utility bonds was fractional, but nevertheless brought that yield also to the lowest point reached throughout the entire period since 1921. There has been superimposed on Chart 6 from Schedule 10 the average yield on newly issued bonds of electric operating utilities beginning with the year 1935, which shows a somewhat more favorable market for bonds of electric operating utilities than for those of light, power, and gas utilities combined.

The chart indicates that from 1921 through 1932 the market for new utility bonds appears to have been some-

what less favorable than for railroad bonds. In 1933, however, this position was reversed and except in the years 1937 and 1938, utility bonds were marketed from 1933 through 1939 on more favorable terms than railroad bonds.

It also appears that from 1921 through 1938 the market for new utility bond issues was consistently more favorable than for industrial issues. A reversal of this situation occurred in 1939 when the average yield on new utility bond issues was 3.45 per cent, as compared with 3.09 per cent on new industrial issues. In this connection, however, attention is directed to Page 1 of Schedule 10 where it is indicated that in 1939 a substantially larger proportion of electric operating utility bond issues consisted of lower medium grade bonds of Baa rating than was the case in prior years, which would appear to account, at least in part, for the failure of the yield on new utility bond issues to follow the yield on industrial issues in that year.

The rapid decline in the yield on newly issued domestic bonds, particularly noticeable since 1934, suggested that the decline could be attributed not only to the course of the bond market itself but also to the quality of the offerings. This assumption is confirmed by comparison of the average yield for newly issued utility bonds with the average yield on utility bonds then outstanding of the three highest Moody bond rating groups, i. e., Aaa, Aa, and A.

The line superimposed on Chart 6, showing the average annual yield from 1934 to 1939 on 30 utility bonds carrying these Moody ratings, very closely conforms to that showing the yield on newly issued utility bonds, except in 1939 for the reason above noted, and indicates that a very large proportion of the utility bonds offered during that period consisted of higher grade bonds.

Schedule 7—This schedule reflects annual yields on a group of electric operating utility preferred stocks during the period of eleven years from 1929 to 1939, inclusive, based on averages of yearly high and low market quotations. The issues included in this exhibit comprise all electric operating utility preferred stocks shown in Schedule 19 of a Federal Communications Commission publication

issued June 15, 1938, for which preferred dividends and prior requirements were earned in excess of 1.50 times in 1938, and for which market quotations for each year in the period 1929-1939 were available. The title of the publication referred to is "The Problem of the 'Rate of Return' in Public Utility Regulation."

Schedule 7 reflects a definite upward trend through 1933 in yields demanded by investors on preferred stocks, and a definite downward trend in the years 1934, 1935 and 1936. After 1936 investors' demands fluctuated within a narrow range at approximately the 1936 level. Expressed in terms of an index based on the 1929 average of the yields on the 16 preferred stocks as equal to 100 per cent, the average yield advanced to 106 in 1931, to 117 in 1932, and to 140 in 1933. In 1934 the average declined to 125, and fell to 103 in 1935. In 1936 the average was about 15 points lower at 88 and, with minor fluctuations in the years 1937 and 1938, stood at 86 in 1939, for which year the average yield demanded by investors was lower than for any other in the 11-year period.

Expressed in terms of per cent yield, the unweighted arithmetic average yield on the 16 preferred stocks increased from 5.74 per cent to 8.04 per cent between 1929 and 1933, declined to 5.10 per cent between 1933 and 1936, and was 5.19 per cent for 1937, 5.27 per cent for 1938 and 4.96 per cent for 1939.

Schedule 7-A—This schedule reflects yields on electric operating utility preferred stocks and number of times preferred dividends and prior requirements are earned based on averages of high and low market quotations for the first nine months of 1940, with earnings coverage based on income for the latest twelve months for which reported.

Schedule 7-A contains a list of 22 preferred stocks and, as indicated in the footnote, includes all electric operating utility preferred stocks shown in Schedule 19 of the previously mentioned publication of the Federal Communications Commission, for which preferred dividends and prior requirements were earned in excess of 1.50 times in 1938.

Examination of this schedule will show that of the 22

preferred stocks listed, two issues were selling to yield from 3.90 per cent to 4.00 per cent to investors, three issues to yield between 4.00 per cent and 4.25 per cent, four issues to yield between 4.25 per cent and 4.50 per cent, four issues to yield from 4.50 per cent to 5.00 per cent, five issues to yield between 5.00 per cent and 5.50 per cent, and four issues to yield from 5.50 per cent to 6.02 per cent. In no instance did any issue sell on a basis to yield in excess of 6.02%. Twelve of the 22 issues reflected yields of 4.74 per cent or lower on the basis indicated. For eight of these twelve issues, preferred dividends and prior requirements were earned in excess of 2.50 times, and with respect to eight of the issues yielding in excess of 4.74 per cent such requirements were earned less than two times.

The unweighted arithmetic average of yields on the 22 preferred stock issues shown in Schedule 7-A is 4.82 per cent, as compared with the 1939 average of 4.96 per cent for the 16 issues shown in Schedule 7. The nine-months average of 4.87 per cent for the 16 issues in Schedule 7 which are also included in Schedule 7-A reflects a continuation in 1940 of a somewhat downward tendency in electric operating utility preferred stock yields.

Schedule 8—This schedule reflects annual earnings-price ratios, that is, the per cent of net earnings per share to market price, on a group of electric operating utility common stocks during the period of eleven years from 1929 to 1939, inclusive, based on averages of yearly high and low market quotations and published annual earnings per share of common stock. The issues included in the exhibit comprise all electric operating utility common stocks shown in Schedule 26 of the previously mentioned publication of the Federal Communications Commission issued June 15, 1938. The stocks listed from such publication include only those common stocks which are held by the public to the extent of at least 5 per cent of the number of shares outstanding.

Schedule 8 reveals that, on the average, from 1929 through 1932 there was a definite upward trend in common stock earnings-price ratios on these common stocks. In other words, during this period, investors demanded that increasing earnings be available for common stock per dollar

of market price. In terms of an unweighted arithmetic average, the average earnings-price ratio for the group of 14 common stocks was 4.06 per cent in 1929, and increased in the three succeeding years, rising to 4.59 per cent in 1930, to 5.95 per cent in 1931, and to 7.74 per cent in 1932, the latter ratio being the highest reflected in any year during the eleven-year period.

In 1933, investors' demands abated somewhat, the average earnings-price ratio declining to 7.02 per cent. In 1934 the ratio rose to 7.57 per cent, but declined to 7.32 per cent in 1935 and to 5.89 per cent in 1936. In 1937 and 1938 the ratio advanced to 6.77 per cent and 7.42 per cent, respectively, but in 1939 declined again and was 7.04 per cent for that year.

It will be observed that during the eleven-year period the average did not exceed eight per cent in any year. Aside from the two years 1929 and 1930 for which the average was less than five per cent, there were two years for which the average was less than six per cent, one year 1937, for which it was 6.77 per cent, and five years for which the average was above 7 per cent, the highest average, as above stated, being 7.74 per cent in 1932. The simple average ratio for the last four years of the period was 6.78 per cent.

Schedule 8-A—This schedule reflects earnings-price ratios of electric operating utility common stocks and the per cent of gross income available for common stock based on averages of high and low market quotations for the first nine months of 1940, and on twelve-months' earnings per share as published in the latest quarterly reports.

Schedule 8-A contains a list of 14 common stocks and, as indicated in the footnote, includes all electric operating utility common stocks listed in Schedule 26 of the previously mentioned publication of the Federal Communications Commission, of which at least five per cent of the issue was outstanding in the hands of the public.

Inspection of data contained in this schedule will show that the earnings-price ratios of the 14 common stocks listed were as follows: one at 4.98 per cent, one at 5.65 per

cent, three from 6.00 per cent to 7.00 per cent, five between 7.00 per cent and 7.75 per cent, two at 8.00 per cent, one at 8.67 per cent, and one at 9.31 per cent. Ten of the fourteen issues reflected earnings-price ratios of less than 7.75 per cent on the basis indicated. It will be noted that for three issues selling on a basis of 8 per cent or more the proportion of gross income available for common stock falls below 50 per cent.

The unweighted arithmetic average of the earnings-price ratios of the fourteen common stock issues shown in Schedule 8-A is 7.29 per cent, as compared with the 1939 average of 7.04 per cent and the 1938 average of 7.42 per cent for the same issues shown in Schedule 8.

Schedule 9—Schedule 9 presents annual information on the volume of all corporate financing in the United States since 1934, and the portion thereof representing financing by public utilities, as compiled by The Commercial & Financial Chronicle. The total volume of financing in each year is segregated to show the portions representing new capital and refunding issues, and subdivisions of the amounts representing new capital, refunding and total corporate financing disclose the proportionate amounts of long-term bonds and notes, short-term bonds and notes, preferred stock and common stock issues comprising the total, both for all corporate issues in the United States and for the portion thereof representing security issues of public utilities.

The total amount of new corporate issues in the United States during 1934 was 491 million dollars, for 1935—2,267 millions, for 1936—4,632 millions, for 1937—2,434 millions, for 1938—2,139 millions, for 1939—2,179 millions, and for the first nine months of 1940—1,674 millions, the total for the entire period being 15,816 millions. Of this total, 7,596 millions, or 48 per cent, represented financing by public utilities. By years the proportions of the total of public utility security issues to all corporate issues in the United States were: 1934—32.3 per cent, 1935—56.6 per cent, 1936—45.9 per cent, 1937—34.0 per cent, 1938—57.2 per cent, 1939—60.5 per cent, and 1940 through September—39.4 per cent.

In this connection, attention is directed to Note 3 on Page 4 of Schedule 9 which indicates that The Commercial and Financial Chronicle, which is the source of the above data on corporate financing, does not classify non-retailing natural gas pipe line companies as public utilities. Securities issued by such natural gas companies are reported by that publication under the heading "Miscellaneous."

The proportion of the total amount of all corporate financing during the period from 1934 to date represented by new capital was 29.8 per cent. New capital accounted for 11.3 per cent of all public utility financing during the same period. By new capital, in this connection, is meant capital obtained for the purpose of additions to plant and property or to increase working capital. By refunding is meant the issuance of new securities for the purpose of retiring existing obligations at or before maturity, or of effecting reductions in dividend rates on preferred stocks.

New capital raised by corporations in the United States during the period from 1934 to date aggregated 4,710 million dollars of which public utility issues accounted for 855 millions, or 18.2 per cent. Of this 855 millions of new capital raised by public utilities, 94.3 per cent was represented by bonds and notes, 4.7 per cent by preferred stocks, and 1.0 per cent by common stocks, whereas the corresponding percentages of new capital obtained from all corporate issues were, for bonds and notes—76.1 per cent, for preferred stocks—10.2 per cent, and for common stocks—13.7 per cent.

The total amount of all corporate issues for refunding purposes during the same period was 11,106 million dollars of which public utility issues accounted for 6,741 millions, or 60.7 per cent. This clearly demonstrates that public utilities have taken advantage of the favorable market in recent years to conduct large-scale refunding operations. In 1939 public utility issues accounted for 70 per cent of all corporate securities issued for refunding purposes. In 1938 the percentage accounted for by public utilities was somewhat higher, at 75 per cent, but was based on public utility refunding issues aggregating 950 millions, as compared with 1,261 millions in 1939.

Public utility financing during the period since 1934 accounted for the following proportions of all corporate issues: long-term bonds and notes, maturing later than five years from date of issue—7,007 millions, or 52.7 per cent of all long-term corporate issues; short-term bonds and notes—158 millions, or 32.5 per cent of all short-term corporate issues; preferred stocks—412 millions, or 32.4 per cent of all preferred stock issues; and common stocks—20 millions, or 2.7 per cent of all common stock issues.

As previously stated, public utility issues of all kinds accounted for 48 per cent of all corporate issues over the entire period under discussion. However, during the years 1937 and 1938 public utility financing accounted for very nearly 60 per cent of all corporate financing in the United States.

Analysis of the various types of securities issued by public utilities during the period covered by Schedule 9 reveals that there were no capital stock issues sold in 1934. Small amounts of preferred and common stock representing new capital were sold in 1935, approximately $4,500,000 of preferred but no common stock issues representing new capital were sold in 1936, approximately $5,700,000 of preferred stock issues and $700,000 of common stock issues representing new capital were sold in 1937, no common stock issues were sold in 1938 and only $300,000 was raised from the sale of common stock in 1939.

In contrast with this record, Page 5 of Schedule 9 reflects the sale of approximately $6,600,000 of common stock and $18,500,000 of preferred stock representing new capital in the first nine months of 1940. The combined total of such issues in 1940 is somewhat in excess of the aggregate of all preferred and common stock issued for new capital purposes during the entire preceding six-year period.

Schedule 10—This schedule contains a summary of all known electric operating utility bond issues, other than bonds and debentures having serial maturities, sold during the years 1935 to 1939, inclusive, and shows that during this period 276 such bond issues were sold aggregating in excess of four and one-half billion dollars. The summary on Page 1 is presented by years and discloses the following

weighted average yields on newly issued electric operating utility bonds based on offering prices to purchasers: 1935—3.81 per cent, 1936—3.48 per cent, 1937—3.63 per cent, 1938—3.43 per cent, and 1939—also 3.43 per cent. The weighted average yield on all issues sold during the five-year period, irrespective of rating, was 3.55 per cent.

Page 2 of Schedule 10 reflects average yields on the same bond issues classified according to ratings assigned by Moody's publications. It is there shown that 104 issues, or approximately 38 per cent of the total number sold during the five-year period, represented bonds of Aaa and Aa rating and 91 issues represented bonds of A and Baa rating. However, it will be observed that in 1939 only one Aaa issue, and three Aa issues were sold in contrast with the larger number of such issues sold in previous years. On the other hand, about one-fourth of the 49 issues sold in 1939 represented bonds of Baa rating and one-fifth represented bonds of A rating, bonds of these two rating groups thus accounting for approximately one-half of the number of electric operating utility bond issues sold in 1939.

The summary on Page 2 of Schedule 10 also discloses that average yields to purchasers have declined since 1936. With respect to bonds carrying the four highest Moody's ratings, yields on issues sold in 1939 were lower than in any other year of the five-year period, such yields being as follows: Aaa—2.75 per cent, Aa—3.08 per cent, A—3.31 per cent, and Baa—3.87 per cent.

Of the 276 issues included in the summary for the five-year period, 74 were issues to which no rating was assigned by Moody's publications. The majority of such issues represented bonds which were privately sold. No rating is ordinarily assigned to bonds which are sold privately inasmuch as there is usually no trading in such issues.

Schedule 10-A—This schedule contains certain details in connection with offerings of electric operating utility bond issues sold during the year 1939. Such offerings aggregated approximately $800,000,000 in principal amount. The weighted average yield to purchasers of these issues was 3.43 per cent.

On Page 1 will be noted an issue of Public Service Com-

pany of Colorado, 3½ per cent first mortgage bonds, due 1964, Rating A, in the principal amount of $40,000,000, which were offered to the public in November 1939, at 102, resulting in a yield to maturity of 3.38 per cent.

There is shown on Page 2 the ten-year 4 per cent Debenture issue of that company, Rating Baa, in the principal amount of $12,500,000, which was also offered to the public in November 1939 at 102, the yield to maturity in this instance being 3.76 per cent.

Schedule 10-B—Schedule 10-B contains a list of all electric operating utility bond issues sold during the first nine months of 1940. The aggregate principal amount of such issues was $419,337,300. There were 40 issues sold during this period, including one Aaa issue sold in July on a 2.73 per cent yield basis, four Aa issues at an average yield of 2.93 per cent, six A issues sold to yield an average of 3.17 per cent, five Baa issues on which the average yield was 3.81 per cent, and two Ba issues sold at an average yield of 4.37 per cent. Twenty-two issues, to which no rating was assigned, were sold in this period of which all but one were sold privately. The weighted average yield of all issues sold was 3.29 per cent, which figure was somewhat lower than the average of 3.43 per cent on newly issued electric operating utility bonds sold during the years 1938 and 1939.

Schedule 11—Schedule 11 presents a compilation of all known preferred stock issues of electric operating utility companies sold in the period 1935-1939, showing the cost of money to issuing companies and yields to purchasers. The average yield to purchasers of such issues was 4.38 per cent for 1935, 4.62 per cent for 1936, 4.63 per cent for 1937, 4.85 per cent for 1938, and 4.99 per cent for 1939. Yields on individual issues in excess of $1,000,000 ranged from 4.09 per cent to 5.95 per cent. For the entire period, the average yield on all issues sold was 4.64 per cent.

Comparison with Schedule 10 indicates the relatively low proportion of preferred stock to bonds issued by electric utilities during the five-year period, new issues of bonds and preferred stock having been sold in proportions of about 25 to 1. However, it should not be inferred that such

a relationship exists between outstanding bonds and preferred stocks in the capital structure of electric operating utilities.

For example, in the volume entitled "Statistics of Electric Utilities in the United States—1938," published by the Federal Power Commission, it is shown on Page IX that for 393 Class A and Class B privately owned electric utilities, long-term debt constituted 52.2 per cent of the total amount of securities outstanding as of December 31, 1938, while preferred stocks comprised 15.4 per cent of the total. In addition, common stocks accounted for 31.6 per cent of the securities outstanding and the remainder, or 0.8 per cent, consisted of premiums, assessments, and so forth, on capital stock.

Schedule 11 shows for each issue the net proceeds per share realized by the issuing company from the sale of preferred stock as well as the offering price per share to the public. In addition, it shows the per cent relationship of annual dividends both to net proceeds and to price paid by public.

For example, a 4½ per cent preferred stock issue of Wisconsin Michigan Power Company was sold in December 1939 at part of $100 per share to yield 4.50 per cent to purchasers. The company realized $96.11 per share as the net proceeds from the sale after meeting all expenses of floating the issue, the dividend requirement of $4.50 per share repsenting an annual cost to the company for preferred stock capital of 4.68 per cent ($4.50—$96.11). The expenses of floating the issue therefore resulted in increasing the annual preferred stock expense of the company over the annual yield to purchasers by 0.18 per cent. Stated another way, the yield to purchasers, 4.50 per cent, plus cost of financing, 0.18 per cent, equals the annual cost to the company for preferred stock capital, 4.68 per cent.

Inspection of Schedule 11 reveals that the weighted average cost of financing in connection with electric operating utility preferred stock issues was 0.12 per cent in 1935 (4.50 per cent—4.38 per cent), 0.15 per cent in 1936 (4.77 per cent—4.62 per cent), 0.15 per cent in 1937 (4.78 per cent—4.63 per cent), 0.19 per cent in 1938 (5.04 per cent—4.85 per cent), and 0.22 per cent in 1939 (5.21 per cent—4.99 per cent).

Over the entire period 1935-1939, the weighted average cost of financing was 0.15 per cent (4.79 per cent—4.64 per cent). In 1939 the cost of financing for four preferred stock issues carrying a 4½ per cent dividend rate ranged from 0.07 per cent (Consolidated Gas Electric Light & Power Co. of Baltimore) to 0.19 per cent (Wisconsin Gas & Electric Co.). These four issues were sold at par or better to yield from 4.00 per cent to 4.50 per cent to purchasers.

Schedule 11-A—This schedule contains details of all known electric operating utility preferred stock issues sold to the public in the first nine months of 1940. The aggregate offering price of such issues was approximately $34,000,000, and the weighted average yield to purchasers was 4.41 per cent, a decline of 0.58 per cent from the corresponding average for the year 1939. It will be noted that a 4 per cent issue of Consolidated Gas Electric Light & Power Co. of Baltimore was sold in August at four points above par to yield 3.85 per cent to purchasers.

Schedule 12—Schedule 12 contains details of all known offerings of electric operating utility common stocks during the period from 1935 through September 1940. Of the five issues listed in this schedule, three were offered to the public during March and April of the present year, the other two issues representing primarily offerings to stockholders in 1935 and 1937, respectively.

In contrast with Schedule 9, Page 5, which reflects the sale of $6,622,520 of new issues of common stock in the months of January to September 1940, Schedule 12 reflects common stock sales amounting to approximately $28,000,000 during the same period. By reference to the footnotes in Schedule 12 it will be seen that only the issue of West Penn Power Company ($4,320,000), and 68,855 shares of the Indianapolis Power & Light Company issue ($1,652,520) fall within the category of new issues. The difference between the sum of the foregoing amounts, $5,972,520, and the above total of $6,622,520 for common stock issues in 1940, is represented by an issue of common stock of Bridgeport Hydraulic Company, a non-electric utility, amounting to $650,000.

For each issue listed in Schedule 12 there are given the

name of the issuing company, the offering date, the number of shares offered, the price to public in dollars per share and the aggregate amount paid by the public, together with the amount of the issuing company's annual earnings per share of common stock for the year preceding the offering date, the per cent of such earnings per share to offering price, and the per cent of gross income available for common stock in the years for which earnings per share are given.

The first issue in Schedule 12 is that of Boston Edison Company (formerly Edison Electric Illuminating Co. of Boston) comprising 82,289 shares of common stock offered to stockholders in the latter part of 1935 at a subscription price of $150 per share. Approximately 94 per cent of the shares offered were taken up by stockholders and the remaining shares were offered to the public at a price of $166 per share. The proceeds were used to retire a portion of the company's outstanding indebtedness. On the basis of earnings per share recorded for the years 1934 and 1935, the average offering price resulted in an earnings-price ratio of between 6.25 per cent and 6.43 per cent. The proportion of the company's gross income available for common stock was 56.85 per cent in 1934 and 61.68 per cent in 1935.

The second issue in Schedule 12 represents an offering to stockholders of Tampa Electric Company in November 1937 to purchase 31,497 shares of the company's common stock at a subscription price of $20 per share. The stockholders subscribed to 30,712 shares, or approximately 97.5 per cent of the shares offered. On the basis of earnings per share recorded for 1936 and 1937, the offering price of $20 per share resulted in an earnings-price ratio of between 11.50 per cent and 11.65 per cent. In this connection it should be noted that the range of market quotations for Tampa Electric Company common stock in 1937 was 25¼—41. It is thus apparent that the price of $20 per share paid by stockholders was well below the then current market price.

The next three offerings listed in Schedule 12 were made in March and April of the present year. In March 1940 a block of 200,000 shares of Commonwealth Edison Company

stock was offered to the public. It was reported that the offering price of 32⅜ was based on the closing price for the stock on the New York Stock Exchange on March 6, 1940.

It is of interest to note that the price range on Commonwealth Edison Company stock from January 1 to March 6, 1940, was 30⅞—32⅝. Accordingly, it may be seen that the offering price was within one-quarter of a point of the highest quotation recorded in 1940 prior to the offering date.

A footnote in Schedule 12 relative to this sale indicates that the stock was offered by a syndicate headed by Dillon, Read & Co. which acquired the shares offered upon conversion of approximately $5,000,000 principal amount of Commonwealth Edison Company convertible debentures purchased from Continental Illinois National Bank and Trust Company of Chicago (each $100 of debentures being convertible into four common shares). The 200,000 shares so offered to the public did not therefore constitute a new issue of securities in the sense that the offering was initiated by Commonwealth Edison Company as a sale of securities to the public. On the basis of 1939 earnings of $2.43 per share, the offering price of 32⅜ resulted in an earnings-price ratio of 7.51 per cent. The proportion of the company's gross income available for common stock in 1939 was 61.69 per cent.

In April 1940, 714,835 common shares of Indianapolis Power & Light Company were offered to the public at a price of $24 per share. Of this number, 645,980 shares represented previously issued common stock which had been held by the Trustee of Utilities Power & Light Corporation, former parent company. The remaining 68,855 shares represented new financing by Indianapolis Power & Light Company, the proceeds from which constituted new capital. Based on 1939 earnings of $2.05 per share, the offering price of 27 resulted in an earnings-price ratio of 8.54 per cent. The proportion of the company's gross income available for common stock in 1939 was 33.95 per cent. In conjunction with its offering of common stock Indianapolis Power & Light company also sold privately an issue of 2,500 shares of 6 per cent cumulative preferred stock as indicated in Schedule 41-A.

West Penn Power Company offered for sale to the public in April 1940 an issue of 160,000 shares of common stock representing new capital. The shares were sold at 27, which price, on the basis of 1939 earnings of $1.62 per share of common stock, resulted in an earnings-price ratio of 6.00 per cent. The proportion of the company's gross income available for common stock in 1939 was 52.85 per cent. In the same month the company offered publicly its first mortgage 3 per cent bonds, Series K, due 1970, Rating Aa, in the principal amount of $3,500,000 at a price of 104½ to yield 2.78 per cent to purchasers, as indicated in Schedule 10-B.

Economic Conditions

Chart 7—Chart 7 shows the range of the composite wholesale commodity price index of the U. S. Bureau of Labor Statistics over the period since 1920, as well as the wholesale price indexes for farm products, foods, and industrial products.

Chart 7 clearly portrays the severe decline in prices which started in 1929 and reached a record low point for the period in 1933. It will also be seen that from March 1933 to March 1937 prices rose steadily, with minor interruptions, the composite index rising from 60 per cent to 88 per cent of the 1926 level during this period. Subsequent to 1937, there was a gradual but steady decline in wholesale prices, with August 1939 indexes at the lowest levels since 1937.

However, in September, 1939, coincident with the outbreak of war in Europe, all indexes advanced sharply. It is of interest to note that wholesale prices of farm products and foods advanced to a much greater extent than prices of industrial products, as indicated below:

	September 1939	August 1939	Net Increase
All Commodities	79.1	75.0	4.1
Farm Products	68.7	61.0	7.7
Foods	75.1	67.2	7.9
Industrial Products	82.1	80.1	2.0

Although the indexes for other commodities registered de-

clines immediately following September 1939, the index for industrial products continued to rise for several months before the upward trend was checked.

From the end of 1939 through August 1940 the index for all commodities registered a net decline of 1.8 per cent, more than half of this decline having occurred since the end of May. The net decline in wholesale prices during the first eight months of 1940 was uniformly distributed among the three classes of commodities. However, fluctuations in prices among the individual commodity groups were wider than those reflected in the combined index.

The fluctuations in farm products prices were wider than in the case of foods and industrial products. From May through August, the farm products index declined from 67.9 to 65.6, or 2.3 per cent, the foods index from 71.4 to 70.1, or 1.3 per cent, and the industrial products index from 82.5 to 82.0, or 0.5 per cent.

Although the trend of wholesale commodity prices has been generally downward since September 1939, prices of the various commodity groups in August 1940 were still somewhat above the August 1939 levels, as disclosed in the following tabulation:

	August 1939	August 1940
All Commodities	75.0	77.4
Farm Products	61.0	65.6
Foods	67.2	70.1
Industrial Products	80.1	82.0

There have been some fluctuations in prices since August 1940, latest figures indicating that for the week ended October 5, the combined index was 77.8, with farm products at 65.5, foods at 70.7, and industrial products at 82.9.

Chart 8—Chart 8 shows the Federal Reserve Board's index of industrial production and the Department of Labor's indexes of factory employment payrolls for the period since 1920, all without adjustment for seasonal variation. The Federal Reserve Board also publishes a seasonally adjusted index of industrial production, as well as an adjusted index of factory employment derived from the unadjusted

indexes computed by the U. S. Department of Labor. For the purposes of this study it was considered preferable to use unadjusted indexes for all three series in order to obtain uniformity. Comparison of the adjusted and unadjusted indexes for industrial production discloses slight variations, but the general pattern of the indexes over a period of time is quite similar. This is because adjustments for seasonal variation are applied to monthly data and cancel out when monthly figures are averaged for a year.

It will be noted that the base period of the index of industrial production is shown as 1923-1925, whereas the index as published uses the years 1935-1939 as the base period.

This change in base period was made in order to permit comparison of the industrial production index with the indexes of factory employment and payrolls for which the base period is also the years 1923-1925.

The Federal Reserve Board recently published a complete revision of its index of industrial production, the revised index being constructed with the average for the years 1935-1939 as equal to 100, whereas in the old index the average for the years 1923-1925 was taken as equal to 100. As a result of the revision, which was carried back through 1919, the new index is derived from 81 individual monthly series directly representing all principal groups of industries in manufacturing and mining, as compared with 60 individual series from which the old index was derived. The index of industrial production was compiled by the Federal Reserve Board for the purpose of measuring changes in the physical volume of the country's industrial output.

Chart 8 indicates that the 1929 peak in industrial production was reached when the index advanced to 134.5 in September of that year. Commencing in October 1929, the index declined with few interruptions until it had fallen to 59.8 in mid-year of 1932.

Following an advance in the fall of 1932, which was largely cancelled in the first few months of 1933, the index advanced to 96.6 in 1933. After several substantial fluctuations, the index commenced to rise late in 1934 and this

rise continued at an accelerated pace which carried the index above the 1929 peak to 143.7 in May 1937.

Thereafter, the index fell abruptly through the remainder of 1937 and more gradually in succeeding months, reaching its next low point in May 1938 at 93.1. From that level the index advanced to 117.2 in November. Following a recession in the early months of 1939, there was a substantial increase in industrial production resulting in the establishment of a new record peak at 144.8 during October and November. After declining to 127.6 in April 1940, the index advanced to 139.1 in July and stood at 135.6 in July. It will be observed that the average level of industrial production in 1939, 124.1, was substantially higher than the average of 101.1 recorded for 1938, but was 5.8 points below the 1937 average.

Chart 8 shows that the general pattern in the trend of industrial production has been reflected also in the indexes of factory employment and payrolls. However, it will be noted that the differences in the index levels for factory employment and payrolls compared to industrial production appear to be considerably broader in the 1937 and 1939 peaks in production than was the case in 1929, indicating changes which may have taken place since 1929 in productivity, in working hours, and in wage rates.

In 1929, at the peak of industrial production, the employment and payrolls indexes reached 110.3 and 114.4, respectively. The lowest levels reached in 1932 and 1933 were 61.0 for employment and 38.3 for payrolls. At the production peaks of 1937 and 1939 the indexes for employment were 111.5 and 103.8, respectively, and for pay rolls were 110.1 and 101.6, respectively. The figures for July 1940 reflect net declines since November 1939 of 4.3 per cent in employment and 5.2 per cent in payrolls. Employment and payrolls indexes for 1939 averaged 96.8 and 90.8, respectively. These averages were higher than those for 1938, but fell short of the levels of 108.6 for employment and 102.5 for payrolls established in 1937.

Chart 9—Chart 9 represents another attempt to depict economic conditions and shows carloadings, steel ingot production and building contracts awarded indexes based on a

computed normal equal to 100. This chart also portrays the effects of the depression commencing in 1929 followed by the recovery movement in 1933 leading up to 1937 and the subsequent decline which continued into 1938.

Starting in the early months of 1938, a considerable rise in all indexes occurred but was reversed late in 1938, this time the decline continuing almost to mid-year of 1939. From that point on, steel ingot production moved rapidly upward, and to such an extent that the index, which stood at 61.1 in May 1939, advanced more than 80 points by December and exceeded the 140 level for the first time since 1917.

This occurrence offers sharp contrast to the record for 1937, in which year the index declined over 80 points in five months, dropping from 119 in August, the peak for that year, to 38 in December. Following December 1939, steel ingot production declined substantially, reaching 80.2 in April 1940, but a shart recovery in May and June cancelled about two-thirds of the loss, restoring the index to a level of 118.7 in June. There are indications that an upward trend is now in progress from that level.

Carloadings also reflected a considerable rise after mid-year of 1939 and were at a higher level at the year-end at 93.2 than in 1937 or 1938. The 1939 index averaged 84.2 which was 8 points higher than for 1938 but 14 points lower than for 1937. The carloadings index declined in 1940 until March from which month the trend was upwards through August. Available data indicate that beginning in the early part of September carloadings began to reflect an increase over August levels.

Building contracts awarded registered net gains in 1939 and the year's average of 62.2 was better than any recorded since 1930. In the first eight months of 1940, the building contracts awarded index has reflected an average increase of 5 points above the corresponding period in 1939.

Chart 10—This chart shows the total amount of national income payments by type of payment by years from 1929 to date, as computed by the U. S. Department of Commerce. A description of these data in some detail is contained in an article which appeared in the October 1938 is-

sue of the Survey of Current Business, but a revised series was published in the October 1939 issue of that publication.

Briefly, the series is intended as an index of the current flow of income to individuals. For this reason the series is not indentical with the annual estimates of national income published by the Department of Commerce. The principal differences are that in arriving at estimates of national income payments, all business savings and employer and employee contributions to Social Security, contributions to Federal retirement, and employee contributions to railroad retirement funds are deducted from national income; and all direct relief payments, veterans' compensation, benefit payments under the Social Security Act, and pensions paid out by private industries and governmental agencies are added. One exception to the foregoing is that business savings in agriculture are included in entrepreneurial income.

The chart shows, as might be expected, that the bulk of national income payments represents compensation of employes. The other major classes of income payments in the order of their importance in proportion to the total consist of entrepreneurial income, dividends and interest, Social Security benefits and other labor income, including pensions, and direct and other relief payments.

The 1929 national income payments are estimated to have been in excess of 81.6 billions of dollars. By 1933 the figure had declined to less than 47 billion dollars, or only 57.3 per cent of the 1929 total. In 1934 national income payments increased to 54 billions, in 1935 to 58-1/2 billions, in 1936 to over 68 billions and in 1937 to about 72-1/2 billions.

From 1937 forward the chart shows for each month a twelve-months ending total in order to disclose the trend. It is indicated that the trend of national income payments was steadily downward through all of 1938 with the result that total income payments for that year were about 6 billion dollars less than in 1937.

Beginning in 1939, however, this downward trend was reversed, and each month during 1939 witnessed a gradual

but consistent increase in total income payments with the result that national income payments in 1939 exceeded the total for 1938 by almost 3-1/2 billions of dollars, although they were lower by approximately 2-3/4 billions than the 1937 total.

The principal increases over 1938 were as follows: salaries and wages—2,216 millions; dividends and interest—605 millions; and entrepreneurial income—439 millions. The upward trend has continued through July 1940 and it will be noted that for the first time since 1937 current estimates of national income payments for the preceding twelve-months period are advancing beyond 70 billion dollars.

In this connection it should be pointed out that the Department of Commerce has made a further revision of its estimates of national income payments for 1929 and later years. The revised totals for each year were obtained from that Department and appear in Schedule 24. It is understood that detailed data on the revised estimates are to be published in the October issue of the Survey of Current Business, which issue, however, was not available at the time of preparation of Schedule 16. Comparison with Schedule 24 will indicate that the revisions were not substantial with respect to the annual totals of income payments.

Chart 11—In any discussion of national income, some means of determining the relative value of the dollar, that is, its purchasing power over the necessities of life, is desirable in order to compare changes in real income as distinguished from cash income. For this purpose, an index of the cost of living may be used. Such an index has been computed by the National Industrial Conference Board to show the trend of living costs of wage-earners' families. The index is based on a comprehensive list of retail prices and rents in five classifications which are weighted according to their relative importance as follows:

Foods, 33; Housing, 20; Clothing, 12; Fuel and Light, 5; and Sundries, 30. Then in the latter group are included such items as household furnishings, reading materials,

recreation and tobacco, as well as organization dues, medical care, carfare, drugs, and so forth.

By obtaining the reciprocal of the cost of living index (using 1929 as the base year) the purchasing power of the dollar at 1929 prices may be determined for any date. For example, Schedule 17 indicates that the cost of living index for the year 1933 was 74.9. The reciprocal of this index is 1/74.9, or 0.01335, which, translated into dollars and cents, becomes $1.335. This represents an increase of 33.5 per cent since 1929 in the purchasing power of the dollar in its command over the necessities of life for the average wage-earner's family.

To illustrate, let it be assumed that in 1929 four units of a given commodity could be purchased for $1.00, and that by 1933 the cost of living index had declined from 100 to 80, and the same four units could be purchased in 1933 for $0.80. It is clear that, at $0.20 per unit in 1933, it would be possible to purchase five units for $1.00 in that year, as against four units in 1929, so that the 1933 dollar would purchase 25 per cent more of that commodity than the 1929 dollar, or, in terms of 1929 prices the 1933 dollar was worth $1.25.

However, Schedule 17 indicates that for every $100 of national income received by individuals in the year 1929, only $57.30 was received in 1933. On the basis indicated above, each dollar of this reduced amount of income was worth 1.335 times as much as the 1929 dollar in its command over the necessities of life, so that $57.30 of 1933 cash income was equivalent to $76.50 of 1929 cash income. Therefore, although the index of national income payments declined from 100 in 1929 to 57.3 in 1933, the decline in real income was only from 100 to 76.5. In other words, the effects of the depression would have been much more severe for all concerned if the cost of living had remained at the 1929 level during the depression period.

It is of interest to note that the purchasing power of income payments received by individuals in 1937, on the

basis indicated, was practically the same as it was in 1929. In 1938 there was a decline both in cash income received by individuals and in its aggregate purchasing power, while in 1939 and continuing into 1940 there has been consistent improvement from the standpoint of both cash income and real income.

Comparative Risk.

In stating the basic principles to be considered in connection with the problem of rate of return it was indicated that the element of risk is a fundamental factor in the determination of a proper rate of return. For this reason an attempt has been made in this section to present data disclosing the relative risk of public utilities and other forms of enterprise as measured by stability of earnings.

Chart 12—Chart 12 reflects the trend of corporate earnings, that is, net earnings available for preferred and common stock, based on earnings indexes computed by Standard Statistics Company for 13 utilities, 117 industrials and all Class 1 Railroads.

From this chart it may be seen that the trend of utility earnings has not been subject to very sharp fluctuations as in the case of industrials and railroads. While the earnings indexes for the latter two groups dropped within less than four years from peaks of 140 and 120, respectively, in the latter part of 1929, down to below-zero levels indicating substantial deficits in 1933, the reduction in public utility earnings in the same period is indicated by a decline in the earnings index from 140 to 90 (base year 1926=100).

In all three corporate groups there was a decline in earnings commencing in the latter part of 1937, but the decline in public utility earnings was much less pronounced. It will be noted that an upward trend in net earnings was maintained by all three groups throughout the year 1939, with the result that 1939 earnings exceeded those for 1938. Actually, utility and railroad earnings for 1939 almost

equalled the 1937 calendar-year levels, but industrial earnings still remained approximately 30 per cent below the 1937 level.

On the basis of estimated earnings for the nine months ended September 1940, as published by Standard Statistics Company, the average level of earnings for the twelve months ended September 1940 were considerably above the level for the calendar year 1939. The indexes for the year ended in September, as shown in Schedule 18, are as follows:

Public Utilities—134.3; Industrials—102.2; Railroads—26.5. It will be noted that industrial earnings, at 102.2, were slightly below the 1937 level of 106.1, while utility and railroad earnings for the year ended September 1940 were at a somewhat higher level than in 1937.

It is of interest to note the average earnings indexes for the ten-year period 1930-1939 of the three groups of companies, which are as follows: Public Utility—110.5; Industrials—56.1; Railroads—10.0. In each instance the earnings index is compared with 1926 calendar-year earnings as equal to 100.

The detailed figures supporting Chart 12 are contained in Schedule 18. The names of the thirteen utilities whose earnings form the basis of the public utility earnings index, together with the principal utility service performed by each company or system as measured by the proportion of total operating revenues derived therefrom, are listed on Page 7 of Schedule 18.

An independent compilation of net earnings available for preferred and common stock, as reported by the five predominantly electric utility companies or systems listed on Page 7 of Schedule 18, discloses that the earnings index for those five companies or systems was for the most part on a considerably higher level throughout the period 1925-1939 than the index for the entire group of thirteen utilities, as may be seen from the following comparison:

Year	Earnings Index 13 Utilities	5 Electric Utilities
1925	87.3	84.5
1926	100.0	100.0
1927	106.9	107.2
1928	124.0	136.3
1929	142.6	164.0
1930	127.7	163.8
1931	123.6	154.3
1932	96.9	120.6
1933	97.8	100.5
1934	88.7	95.7
1935	93.1	107.1
1936	121.0	114.9
1937	125.8	132.8
1938	107.1	116.5
1939	123.1	137.4

Chart 13—Chart 13 shows the relationship of net profit to total invested capital for leading American industrial, utility and railroad corporations, based upon studies and publications of the Standard Statistics Company, and covers the thirteen-year period 1927-1939. Two methods of computing invested capital may be used. By one of these methods invested capital is considered as representing outstanding securities plus surplus and capital reserves. This method is the basis of the data reflected in Chart 13. Net profit, as defined in the computations used for this chart, represents the amount available for fixed charges after depreciation, and so forth. Accordingly, comparable earnings figures are obtained regardless of differences in capital structure.

It may be pointed out, in connection with Chart 13, that not only are utility earnings more stable than earnings of industrials and railroads but for the ten-year period 1930-1939 the average per cent of utility net profit (as defined) to total invested capital was approximately equal to the industrial average and, of course, considerably higher than the railroad average.

The averages for the ten-year period are as follows: Public Utilities—5.57 per cent; Industrials—5.59 per cent; Railroads—3.17 per cent.

Page 3 of Schedule 19 contains a list of the 21 leading utility corporations for which the relationship of net profit to invested capital is expressed in Chart 13. For each utility corporation or system in the list is shown the principal utility service rendered, together with the per cent of total operating revenues derived from such service. It will be noted that 13 of the 21 utility corporations or systems listed therein are predominantly electric utilities.

Chart 14—Chart 14 portrays a similar relationship to that shown in Chart 13. However, in the data supporting Chart 14, which are contained in Schedule 20, invested capital is represented as the sum of property accounts (less reserves for depreciation) and inventories of materials and supplies. The resulting chart does not differ greatly from Chart 13 in the trends shown for the different types of companies, although the percentage levels differ somewhat.

In this instance, also, an independent compilation was made of underlying data for the 13 predominantly electric utility companies or systems (see Page 3 of Schedule 19) included in the group of 21 leading utility corporations. A comparison of the results of such compilation with the per cent of net profit to property accounts and inventories for the group of 21 leading utility corporations as shown on Page 1 of Schedule 20 is presented on the following page.

	% Net Profit	
	21 Utilities	13 Electric Utilities
1927	7.3%	7.3%
1928	7.5	7.2
1929	7.6	7.4
1930	7.3	7.3
1931	6.9	6.8
1932	6.1	6.2
1933	5.8	5.8
1934	5.7	5.8

	% Net Profit	
	21 Utilities	13 Electric Utilities
1935	6.1	6.0
1936	6.4	6.3
1937	6.2	5.9
1938	5.9	5.8
1939	6.2	6.2

From the foregoing comparison, it would appear that the results shown in Chart 14 with respect to the group of 21 leading utility corporations are heavily weighted by the earnings experience of electric utilities during the thirteen-year period 1927-1939.

Local Conditions.

This section is presented to afford a *persepective* of conditions in the general area of ultimate consumption of natural gas supplied through the pipe line facilities of the companies included in the present proceedings.

Chart 15—Chart 15 shows the comparative rediscount rates of the New York and Chicago Federal Reserve Banks and indicates that these rates are at the lowest point since 1920, namely, 1 per cent and 1.5 per cent, respectively. No change in rate has been effected by either bank since August 1937 as indicated in Schedule 21 which shows all changes in the rediscount rates effected by both Federal Reserve Banks since 1918.

Schedule 21-A—This schedule contains the year-end rediscount rates of the twelve Federal Reserve Banks for the years 1929 to 1939, inclusive. It will be observed that in 1937 the rediscount rate of each of the twelve banks except the Cleveland Federal Reserve Bank was reduced by one-half per cent. The rate then established was 1.50 per cent for all banks except the Federal Reserve Bank of New York which reduced its rate from 1.50 per cent to 1.00 per cent. There has been no change in rate since 1937 by any of the twelve banks with the exception of the Federal Reserve Bank of Boston which reduced its rate from 1.50 per cent to 1.00 per cent in 1939.

Chart 16—Chart 16 compares averages of rates on commercial loans charged customers by banks in principal cities of the country and shows separately the rates for banks in New York, banks in seven northern and eastern cities exclusive of New York City, and banks of eleven southern and western cities.

As indicated in Schedule 22 supporting the chart, the figures relate to rates charged by reporting banks to their own customers as distinguished from open market rates. The averages are based on rates reported for all new commercial and industrial loans with maturity of 30 days to 12 months, except paper purchased in the open market and loans secured by real estate, but including business loans secured by stocks and bonds as well as business loans otherwise secured and unsecured.

Loans to building and loan associations, insurance companies, credit unions, and similar organizations not engaged directly in financing the sale of consumers' or durable goods, loans to hospitals, educational institutions, and so forth, and personal or installment loans to individuals other than for business purposes are not included.

The cities included in the group of seven other northern and eastern cities and eleven southern and western cities are listed on Page 2 of Schedule 22. As indicated on Chart 16, the rates charged customers by New York City banks are considerably lower than those charged by the banks outside New York, while the rates of the seven other northern and eastern cities in turn are lower than the rates charged by the eleven southern and western cities. The comparative rates for the second quarter of 1940 are as follows: New York City—2.00 per cent; seven northern and eastern cities—2.49 per cent; eleven southern and western cities—3.38 per cent.

It will be noted that all rates drifted steadily lower from 1933 through 1936, after which time a certain degree of stability is noted until the early part of 1939. By 1935 rates on commercial loans in New York City had fallen to about present levels, but in other leading cities they continued to decline through 1935 and 1936.

In this connection it should be noted that the current quarterly averages are not strictly comparable with the monthly averages shown for the period 1928-1938. The two series differ in that the monthly series was based on reports of prevailing rates, whereas for the present quarterly series each bank reports the numbers and amounts of loans made at specified rates and within various rate changes. On the new basis, rates are at a higher level for New York City by approximately one-half per cent.

Rates currently are based on reports made four times a year covering data on new loans for the first half of March, June, September, and December. Between September 1938 and September 1939 rates first increased and then declined, but it is reported that this movement was largely due to seasonal influences. Because of methods of reporting, seasonal influences did not appreciably affect the rates that were formerly reported by banks.

It will be observed that the rates charged customers by New York City banks and banks in the seven other northern and eastern cities, which include the City of Chicago, reflected a decline in the last quarter of 1939 which was followed by a rise in the first quarter and a decline in the second quarter of 1940. On the other hand, rates charged by banks in the eleven southern and western cities reflected no substantial change in the last quarter of 1939 but exhibited slight increases in the first two quarters of 1940.

Schedule 23—This schedule contains comparative indexes of department store sales for the United States as a whole and for the Federal Reserve District of Kansas City. This district embraces all of the states of Colorado, Wyoming, Nebraska, Kansas, substantial portions of New Mexico and Oklahoma and a narrow strip along the western boundary of Missouri. Schedule 23 indicates that during the period since 1924 the level of department store sales in this region has compared favorably with that for the nation and in recent years has shown a tendency to fluctuate at almost the same level as that for the nation.

Schedule 24—This schedule is presented for the purpose of comparing the relative changes in the level of in-

come payments for the United States and the state of Colorado for the period since 1929. An index (1929=100) has been computed from dollar amounts obtained directly from the National Income Section of the U. S. Department of Commerce. The United States totals have recently been revised by the Department of Commerce for all years.

However, the revised amounts shown in this schedule are not substantially different from the previously published figures contained in Schedule 16, nor do the index figures for the United States vary to an important extent from those appearing in Schedule 17.

It will be noted that national income payments for the state of Colorado amounted to $613,000,000 in 1929, declined to $374,000,000 in 1933, rose to $608,000,000 in 1937, or 99.2 per cent of the 1929 total, fell off to $554,000,000 in 1938 and advanced to $581,000,000 in 1939.

Income payments for the state of Colorado had fallen by 1933 to 61 per cent of the 1929 total, whereas for the nation the corresponding figure was lower at 57 per cent in 1933. Comparison of the figures for the United States and state of Colorado for individual years reveals that while fluctuations followed the same general pattern in both instances, the index level of income payments for the state of Colorado has been consistently higher than that for the nation and in 1939 was 94.8 for Colorado as compared with 85.1 for the country as a whole.

Schedule 25—This schedule presents comparative statistics on estimated cash farm income, value of manufactured products added by manufacture, and value of all minerals produced for the United States and the state of Colorado.

In the upper section of the schedule the data are reported in millions of dollars, while in the lower section the dollar amounts have been reduced to an index based on the year 1929 as equal to 100. Figures are not available for all years in all classifications. Inspection of the data reveals that the level of estimated cash farm income from livestock and crops (including Government payments beginning in 1933) was somewhat lower for the state of Colorado than for the nation.

With respect to value added by manufacture in the state's manufacturing industries, it appears that the levels in the biennial census years for the state of Colorado have been approximately equal to those for the nation since 1929. However, the value of minerals produced in Colorado has been relatively higher since 1929 than for the country as a whole.

From 1934 to 1937 the index of value of minerals produced became increasingly higher for Colorado than for the nation to the extent that in 1937 when the United States index reached its highest level of 90.5 since 1929, the corresponding index for the state of Colorado stood at 121.7.

Idle Money Factors.

The data in this section are presented for the purpose of showing the present situation with respect to the volume of idle investment funds and the factors contributing to the growth of such funds in recent years.

Schedule 26—This schedule reflects the total amount of funds carried by member banks of the Federal Reserve system in their reserve balances with the twelve Federal Reserve Banks, together with the portion thereof representing "required" reserves and "excess" reserves, as of the close of each year commencing with 1923.

Required reserves are funds which member banks are required by law to keep on deposit with the Federal Reserve Banks as reserves against deposits made with the member banks by their own customers. Member banks may carry balances with the Federal Reserve Banks in excess of their required reserves, such excess balances consituting what are known as excess reserves.

Changes in reserve requirements since June 21, 1917 are shown on Page 2 of Schedule 26. Reserve requirements on demand deposits of member banks vary according to classes of banks. Member banks are classified into three groups: central reserve city banks, reserve city banks, and country banks. Central reserve city banks are member banks located in New York City and Chicago, reserve city banks are member banks in sixty other cities of lesser size, and

country banks are member banks located elsewhere. It will be noted that reserve requirements on time deposits are uiform for all member banks, while there are important variations among classes of banks in required reserves based on demand deposits.

It will be noted that in the early years of the period the total reserve balances were not subject to marked fluctuation and excess reserve balances were comparatively small in relation to total reserves, some years in fact reflecting deficiencies in required reserves. This was the situation prevailing generally prior to 1931. In that year total reserves reached their lowest level following 1923 at 1,961 millions of dollars. In the following two years the reserves increased to 2,729 millions, but the increases in total reserves were reflected by increases in excess reserves which, at the end of 1933, were higher than those shown for any previous year.

From 1933 to 1935 total reserves more than doubled and excess reserves increased by approximately two billion dollars. Reserve balances continued to increase in 1936 but due to an increase in reserve requirements in August of that year excess reserves decreased 860 millions despite an increase of approximately a billion dollars in total reserves. The increases in reserve requirements in March and May 1937 effected a still further reduction of 772 millions in excess reserves, although total reserves increased about 400 millions in that year.

In April 1938 reserve requirements were reduced to approximately those established in March 1937 and thereafter, with no changes in reserve requirements, total reserves continued to increase to a level in excess of 13½ billion dollars in 1940. Required reserves have increased from 5,815 to 7,058 millions since 1937, but excess reserves have increased by 5,400 millions to an unprecedented total of over 6½ billion dollars, the figure at September 25, 1940 being 6,645 millions.

Schedule 27—The purpose of this schedule is to set out the factors which supply member bank reserve funds and those which use such funds in such manner as to show the various changes which have accounted for the rise in mem-

ber bank reserve balances in the Federal Reserve Banks between June 1929 and September 1940.

The schedule shows that the factors supplying funds for the building up of member bank reserve balances are increases in outstanding Federal Reserve Bank credit, increases in the monetary gold stock, and increases in U. S. Treasury currency outstanding. Decreases in these items operate to decrease member bank reserve balances. Federal Reserve Bank credit consists of bills discounted for or advances made to member banks, bills bought in the open market, holdings of U. S. Government securities, and other items such as industrial advances made under Section 13b of the Federal Reserve Act.

On the other hand, the factors using or drawing upon member bank reserve balances are increases in currency in circulation, in U. S. Treasury cash holdings, in U. S. Treasury deposits with Federal Reserve Banks in non-member bank deposits with Federal Reserve Banks and in other Federal Reserve accounts. Decreases in these items operate to increase member bank reserve balances. The item "other Federal Reserve accounts" consist of the sum of paid-in capital, surplus, other capital accounts, and all other liabilities (excluding deposits and Federal Reserve notes in circulation), less bank premises and all other assets (excluding gold certificates, cash, and so forth, on hand and holdings of bills discounted, U. S. Government securities, and so forth).

Inspection of Schedule 27 will show that the net effect of changes in these factors between June 1929 and September 1940 has been an increase of 11,347 million dollars in member bank reserve balances with the Federal Reserve Banks. With respect to such increase in member bank reserve balances, it is shown that required reserves increased by 4,725 million dollars and excess reserves increased by 6,622 million dollars.

It is apparent from inspection of Schedule 27 that the most important factor contributing to the increase in member bank reserve balances has been the increase in the monetary gold stock. From approximately 4 billion dollars in June 1929 the gold stock had increased to 21 billion dollars

in September 1940, a growth of over 17 billion dollars during the eleven-year period.

Analysis of the growth in the gold stock reveals that approximately 13 billion dollars of the increase has originated since 1934. Data available through September 1940, up to which time the increase in the gold stock since 1934 amounted to approximately 13 billion dollars, indicate that about half of this increase was accounted for by the net movement of capital to this country from foreign countries, not including over 4 billion dollars of gold imports arising from unaccounted-for transactions. The remainder of the increase was accounted for principally by favorable balances of trade and services with foreign countries and domestic gold production, which were offset to some extent by net imports of silver.

Schedule 28—This schedule shows comparative figures for all years since 1923 on total deposits and total loans and investments of all banks in the United States as contained in annual and monthly publications of the Board of Governors of the Federal Reserve System. Data are shown separately for non-member banks and member banks of the Federal Reserve System.

The data on deposits reflect an increase of approximately seven billion dollars in total deposits, exclusive of interbank deposits, from June 1929 to June 1940, whereas the comparable figures on loans and investments indicate a decrease during the same interval of about seven billion dollars. The comparison reflects a net increase in uninvested funds during the eleven-year period of around fourteen billion dollars for all banks in the United States.

For member banks of the Federal Reserve System the increase in deposits during the eleven-year period was about ten billion dollars and the decrease in loans and investments amounted to approximately one billion, dollars, indicating a net increase of around eleven billion dollars in uninvested funds of member banks during the period. This amount is seen to correspond closely with the increase in member bank reserve balances between June 1929 and September 1940 shown in Schedule 27. (A comparison with June 1940 mem-

ber bank reserve balances would give substantially the same result inasmuch as the June reserve balances did not exceed the September balances by more than twenty million dollars.)

Because of reserve requirements imposed upon member banks by law, it is evident from Schedule 27 that they are restricted in the use of reserve balances for expansion of loans and investments to that portion thereof representing excess or idle reserves. These excess reserves, as above stated, amounted to 6,645 million dollars at September 25, 1940. By reference to Page 2 of Schedule 26, however, it is apparent that loans and investments could be expanded several times the amount of current excess reserves before the latter would be absorbed into required reserves under operation of current reserve requirements. This possibility arises from the fact that expansion in loans and investments by the member banks considered as a whole would give rise to increased deposits, unless there are offsetting influences, whereas the banks would be required to maintain reserves against such increased deposits only to the extent of the required percentages shown in Schedule 26.

From the data presented in this section, it may be seen that opportunities for investment, because of the growth in the volume of idle funds, have been more limited in the past few years than formerly, particularly in view of the fact that since the beginning of 1934, as reflected in Schedule 9, more than two-thirds of all corporate financing in the United States has been for refunding purposes. This situation with respect to idle funds has been reflected in the declining level of interest rates during the period since 1934.

Rate of Return Study—Part II.

As previously stated, Part II of the rate of return study contains some general statistics of the natural gas industry and presents certain facts with respect to the ownership, issuance, prices and yields of securities of natural gas pipeline companies. The statistical data are contained in Schedule 1 to 4, inclusive, and Charts 1 to 3, inclusive, as listed in the Table of Contents. The data pertaining to securities of natural gas pipe-line companies are contained in Schedule 5, together with its underlying Schedules 5-A, 5-B, 5-C, 5-D,

5-E, 5-F, and 5-G, and in Schedule 6. Chart 4 and Schedule 7 contains information respecting the corporate affiliations of the companies involved in the present proceedings, and recent financing by companies affiliated therewith.

Operating And Financial Statistics
Of The Natural Gas Industry

Schedule 1

Revenues from Sales to Customers. Schedule 1 portrays the growth of the distributing end of the natural gas industry. It shows revenues, volume of gas sales, and number of customers by years from 1929 to 1939, both inclusive, as taken from Statistical Bulletin No. 41, October, 1940, published by the American Gas Association under the title "Annual Statistics of the Natnral Gas Industry in 1939." The data on revenues, gas sales and customers are set forth under separate captions in the upper, middle, and lower portions of the schedule.

As indicated in the footnote, the figures do not include natural gas used in field operations and in the manufacture of carbon black or gas used by distributing companies in the conduct of their own operations. Furthermore, the statistics do not include data for companies selling mixed manufactured and natural gas.

By referring to the upper section of the schedule, it will be seen that during the eleven-year period revenues increased from 376 million to 448 million dollars, or by approximately 19 per cent. With the general falling off of business in 1938, revenues declined some 28 million dollars below the 1937 level but in 1939 they increased approximately 33 million dollars and exceeded 1937 revenues by over 5 million dollars. Following 1929, revenues increased somewhat in 1930, fell off in 1931, 1932 and 1933 and recovered in 1934, each year thereafter except 1938 reflecting a substantial increase over the previous year. According to the latest report of the American Gas Association, revenues for the first seven months of 1940 have reflected a substantial increase over the revenues for the same period in 1939.

The classification of revenues shown in Schedule 1 reveals

that revenues derived from sales to domestic consumers, including natural gas sold for househeating purposes, constitute substantially more than half of the total revenues reported. In 1929 such revenues amounted to $223,000,000 and, while falling off to the extent of 5 percent at the low point of the depression, recovered rapidly and were $32,000,000 higher in 1939 than in 1929.

Commercial revenues showed steady improvement each year during the eleven-year period, except in 1933 and 1938, increasing from $32,000,000 in 1929 to over $50,000,000 in 1939, a gain of over fifty per cent.

Revenues from industrial sales, including natural gas used as fuel by electric utilities, amounted to $120,000,000 in 1929. During the depression years, revenues from this source declined to $75,000,000 in 1932, but recovered in 1933 and by 1937 were $26,000,000 higher than in 1929. In 1938 revenues from industrial and electric utility consumers amounted to $126,000,000 off $20,000,000 from 1937, but in 1939 recovered again to $142,000,000, which amount, however, was still $5,000,000 below the 1937 total. According to the latest report of the American Gas Association, the revenues for industrial and electric generation consumers for the first seven months of 1940 exceeded the revenues for the same period in 1939 by over $6,000,000.

Average Annual Revenue per M. C. F. of Gas Sales. The average annual revenue per M.C.F. of gas sold amounted to 38 cents in 1929, was 41.1 cents in 1932, 33.7 cents in 1937, 34.3 cents in 1938, and 33.8 cents in 1939, a net decrease of 4.2 cents since 1929.

The average revenue from domestic sales was 66.7 cents in 1929 and, after reaching 71.1 cents in 1932 and 1933, gradually declined to 68.6 cents in 1939, a net increase of 1.9 cents per M.C.F. since 1929.

The average revenue per M.C.F. of gas sold to commercial consumers has been following a steadily downward trend since 1929 and declined from 55.5 cents in 1929 to 46.1 cents in 1939, a net decrease of 9.4 cents per M.C.F. since 1929.

The average for industrial and electric utility sales has

declined from 20.1 cents per M.C.F. in 1929 to 16.9 cents in 1939, a decrease of 3.2 cents, the 1939 average being almost one cent higher than the average of 16.0 cents for 1934.

Gas Sales to Consumers (M.C.F.) Total gas sales reported for 1929 aggregated 991 million M.C.F. In 1932, sales reached a low point of 834 million M.C.F. for the eleven-year period. Subsequent years through 1937 witnessed steady improvement and the 1937 total was 1,314 million M.C.F., a decline of about 104 million M.C.F. taking place in 1938, but during 1939 the total again reached a new level of 1,328 million M.C.F. The bulk of the large increase of 337 million M.C.F. in volume of sales between 1929 and 1939 was brought about by increased sales to industrial and commercial consumers. Commercial consumption increased from 58 to 109 million M.C.F. during the period and industrial consumption increased from 597 to 846 million M.C.F., while domestic consumption increased from 335 million M.C.F. in 1929 to 373 million M.C.F. in 1939. About 85 percent of the increase in total gas sales in 1939 over 1938 was attributable to the increase in industrial consumption. Fluctuations in industrial consumption normally would tend to conform to changes in economic conditions. However, upon comparison with the fluctuations reflected in the Federal Reserve Board's index of industrial production, it was found that using an index with 1929 as the base year in each case, industrial consumption did not fall during the depression years to the lowest level reached by the index of gas sales to industrial and electric utility consumers has been at a substantially higher level than the index of industrial production. This situation would appear to be accounted for in a large part by the expansion in number of industrial customers since 1929, such expansion being indicated by the increase from 22,000 customers in 1929 to 43,000 in 1939.

Average Annual Gas Sales (M.C.F.) per Customer. Average annual sales in M.C.F. per customer are based on the number of customers at the end of each year.

Sales to domestic consumers declined during the period as a *whole*, the average M.C.F. per customer per year being 60.5 in 1929 and 54.3 in 1939. However, the low point was 51.3 in 1934 and there was slight increases in 1935, 1936 and

1937, as well as in 1939, although in the latter year the average was still slightly below the 1937 figure.

The average consumption per commercial customer was 175.6 M.C.F. per year in 1929, reaching a low point of 164.2 in 1931, increased to 179.5 in 1932, fell off to 170.4 in 1933 and increased thereafter in each year to 204.1 in 1937.

Average industrial sales in M.C.F. per customer per year, fluctuated more sharply as would be expected in a period of changing economic conditions such as business has experienced since 1929. The sales per customer were 27,135 M.C.F. in 1929, dropped to 17,440 in 1933 and recovered thereafter, reaching 21,294 in 1937. In 1938 the average consumption per customer declined to 18,044 M.C.F., but in 1939 increased to 19,673 M.C.F.

Number of Customers at End of Year. The data on number of customers at end of year shown in the lower portion of Schedule 1 reveals a substantial growth since 1929, the number of all customers increasing from 5,896,000 in that year to 7,454,000 in 1939, an increase of 1,558,000 customers. In only one year, 1932, is a decline in total number of customers shown although it will be noted that the number of customers did not vary between 1930 and 1931.

Domestic customers increased from 5,540,000 in 1929 to 6,870,000 in 1939 a gain of 24 percent in the eleven-year period. Except in 1931 and 1932 there was a substantial increase in domestic customers each year. The number of commercial customers reflected a marked growth during the period since 1929, the increase in this group being from 334,000 in 1929 to 541,000 in 1939, a gain of over 60 per cent. The number of industrial customers has almost doubled, increasing from 22,000 in 1929 to 43,000 in 1939.

Average Annual Revenue per Customer. The average revenue per domestic customer was $40.34 in 1929 and $37.24 in 1939. For commercial customers the average was $97.54 in 1929 and $93.09 in 1939. It will be noted that in 1939 average annual revenue for both domestic and commercial customers increased over that for 1938 but was somewhat lower than in 1937. Average revenues per industrial customer fluctuated considerably during the eleven-year period

and, while the number of customers almost doubled, the annual revenue per industrial customer dropped *fro* $5,463.95 in 1929 to $3,318.42 in 1939.

Schedule 2—Schedule 2 contains comparative estimated income statements for the years 1931 to 1939, inclusive, of the companies for which revenues, gas sales and customer data were presented in Schedule 1, and was taken from the same statistical bulletin of the American Gas Association.

It will be noted that the revenues from gas sales to consumers shown on the first line in Schedule 2 are in agreement with the revenue data shown in the upper portion of Schedule 1. Examination of Schedule 2 discloses that net operating income, designated as "Utility Operating Income" was $107,678,000 in 1939, or about $10,000,000 higher than that for 1938 although $4,000,000 lower than the 1937 figure of $111,811,000 which represented the peak for the nine-year period, and $2,000,000 lower than the 1936 total. The low point following 1931, for which year net operating income was reported at $84,601,000 was reached in 1933 at $65,188,000. In 1934 net operating income recovered to $71,382,000 and increased to $93,508,000 in 1935.

Net income available for dividends and surplus followed the same general trend, starting at $51,103,000 in 1931, declining to $26,940,000 in 1933, rising steadily to $74,989,000 in 1937, declining to $62,275,000 in 1938, and increasing to $72,152,000 in 1939. It will be noted that although net operating income in 1939 was lower than in 1936, net income available for dividends and surplus was higher in 1939 by $3,000,000, chiefly because of a decrease in interest and other deductions of almost $6,000,000.

Utility plant, which is reported only for the years 1934 to 1939, inclusive, increased from 1934 to 1938 by approximately $111,000,000. In 1939 utility plant was reported at $2,414,490,000, which was about $30,000,000 less than the amount reported for 1938.

Chart 1—This chart shows at the right monthly sales of natural gas and revenues there from by months during the years, 1929, 1937, 1938, 1939 and the first half of 1940. At the lower left are shown monthly revenues of the manufac-

tured gas industry and at the upper left combined revenues of the total gas industry during the same years, except for 1939 which in general coincided with 1938.

The revenues for the entire gas industry were generally higher in 1937 than in 1929 and 1938, but showed a substantial increase over 1937 during the first half of 1940, due generally to the increase in sales of natural gas. Revenues from the sale of manufactured gas show generally a decline since 1929. On the chart at the right, the lower group of curves shows that the revenues of the natural gas industry have increased generally since 1929 and are at a new high level in 1940.

The upper group of curves on the chart at the right shows that the business of natural gas companies is highly seasonal in character, as indicated by monthly fluctuations in the volume of gas sold. Volume of sales in recent years has been substantially greater than in 1929. In 1939 sales were greater in the first and last few months but smaller in the summer months than was the case in 1937, total sales for 1939, however, exceeding those of 1937 by about 13,000,000 M.C.F. Deliveries during most of the first six months of 1940 were greater in volume than in 1939, with sales in February at the greatest volume recorded for that month.

Chart 2—Chart 2 is presented in order to show the monthly trend of sales in 1940 as compared with 1939 both in total and by classes of revenue, that is, domestic, commercial and industrial. The chart shows that total monthly revenues in 1940 through the month of June were substantially higher than in 1939, with the largest consistent gain being in domestic revenues, although industrial and commercial revenues, particularly in the first few months of 1940, also reflected a substantial increase over 1939. The February peak in revenues will be seen to have been accounted for by peaks in domestic and commercial revenues recorded in that month.

Chart 3—Chart 3 is a photostatic copy of a chart taken from the American Gas Association's Statistical Bulletin No. 41 of October 1940. The chart compares the American Gas Association's index of total natural gas consumption

by domestic and commercial consumers, with its index of manufactured gas consumption by all classes of consumers, and with the Standard Statistics index of industrial activity, all indexes being based on the year 1926 as equal to 100.

The reason for omitting industrial sales in constructing the index of natural gas sales while including them in the index of manufactured gas sales is easily found by comparison of the relationship of industrial sales to total sales. In the case of manufactured gas, industrial sales for the twelve months ended December 1939, as reported in the American Gas Association's Monthly Summary of Gas Company Statistics for that month, amounted to approximately 58.5 million Mcf., or roughly 16 per cent of total manufactured gas sales. However, sales of natural gas for industrial use in the same period, including sales for electric generation purposes, amounted to approximately 846 million Mcf., or 64 per cent of total natural gas sales.

The chart shows that manufactured gas sales rose to 116 per cent of the 1926 level in 1930, fell to somewhat less than the 1926 level in 1933, increased steadily thereafter through 1939, the index reaching about 120 in that year. Sales of natural gas, however, on the basis indicated, have increased to a substantially greater extent since 1926 than manufactured gas sales.

The index of natural gas sales rose to 130 by 1929, dropped to 118 in 1933, which was still far above the 1926 level, advanced to about 146 by 1937, and fell off to a moderate extent in 1938, but reached a new peak in 1939. Thus in 1939 the volume of natural gas sales was approximately 54 per cent greater than in 1926, while manufactured gas sales were only about 20 per cent greater.

It will be seen by comparison with the Standard Statistics index of industrial activity that although both the natural and manufactured gas industries experienced a decline in volume of gas sold during the depression years, the volume did not decline below the 1926 level, except to a slight extent in the case of manufactured gas, in contrast with the experience of industry in general, for which a decline in activity of about 45 per cent from the 1926 level was recorded at the lowest depth of the depression.

Schedule 3—Schedule 3 shows the total amount of natural gas production and consumption in the United States for the years 1926 to 1939, inclusive, and the amount transported in interstate commerce for the years 1926 to 1938, inclusive. From 1926 to 1939, natural gas production increased from 1,313 million to 2,435 million Mcf. Consumption, excluding gas used for field operations and manufacture of carbon black, increased from 704 million to 1,436 million Mcf. in the same period.

Natural gas transported in interstate commerce increased from 209 million Mcf. in 1929 to 636 million Mcf. in 1938. In other words, since 1926 production has increased 85 per cent, and consumption other than for field use and carbon black manufacture has more than doubled. These increases were accompanied by an increase of over 200 per cent in the quantity of natural gas transported in interstate commerce up to 1938 and, as will be seen from column (e) of the schedule, the proportion of the total quantity of natural gas consumed which is transported in interstate commerce has also been steadily increasing. Thus in 1938 this proportion was about 48 per cent of total consumption, whereas in 1926 the proportion was approximately 30 per cent, indicating the increased importance of natural gas as a commodity in interstate commerce.

Schedule 4—Schedule 4 is presented for the purpose of showing data on the interstate movement of natural gas into the states of Colorado and Wyoming, as taken from publications of the U. S. Bureau of Mines. The schedule shows that since 1929 Texas has been the largest source of natural gas transported into Colorado from other states.

The quantity of gas transported from Texas into Colorado is shown in Schedule 4 to have increased from 12,563,000 Mcf. in 1929, the first full year of operation of the Denver line, to 20,511,000 Mcf. in 1937, and to have declined to 18,210,000 Mcf. in 1938. The records of the Federal Power Commission indicate that all gas moving into Colorado from Texas is transported through the pipe lines of the Canadian River Gas Company and Colorado Interstate Gas Company, two of the three companies involved in the present proceedings.

With respect to natural gas transported into the state of Wyoming from other states, Schedule 4 shows that since 1931, the largest portion thereof has consisted of gas transported from Texas. In 1929 and 1930, the only interstate movement of gas into Wyoming was reported as gas transported from Colorado. The Commission's records disclose that the only movement of natural gas into Wyoming from Texas is transported through the facilities of the two above-named companies and those of the Colorado-Wyoming Gas Company, the third company involved in the present proceeding. The latter company formerly transported gas into Wyoming from the Wellington, Colorado, fields, but when that field began to show signs of depletion, the company's pipe line system was extended south and connected with the system of Colorado Interstate Gas Company in 1931.

Ownership, Issuance, Prices and Yields of Securities of Natural Gas Pipe Line Companies

Schedule 5—Schedule 5 contains summarized data with respect to the security issues of 25 natural gas pipe line companies.

In preparing this list an attempt was made to include all natural gas companies which had the folowing characteristics:

(1) Companies engaged in the production and transmission of natural gas and sales thereof at wholesale and to main line industrial customers.

(2) Companies engaged in the transmission of natural gas and sales thereof at wholesale and to main line industrial customers.

(3) Companies so engaged which had operating revenues of $2,500,000 or more.

The purpose in selecting companies conducting operations of the type mentioned with revenues of $2,500,000 or more was to obtain a group of companies exhibiting generally the characteristics shown by the companies involved in the present proceedings.

Schedule 5 sets forth for each of the 25 companies having the characteristics just mentioned the total amount of securities outstanding and a breakdown of the total for each company according to classes of securities, i. e., bonds, debentures, notes, preferred stock, and common stock. Also shown for each company and each class of security, based on the most recent information available, are the amounts of securities held by the public, by institutions, and by affiliates. Institutional holdings include securities held by banks, insurance companies, universities, and so forth.

In this connection, it should be pointed out that Schedules 5-A to 5-G, inclusive, contain details supplementing or supporting the data contained in Schedule 5. For example, Schedule 5-A contains certain information with respect to the bonds, debentures and notes of the companies listed in Schedule 5 which are held by the public. Schedule 5-B gives details regarding the identity of institutional holders of bonds, debentures, and notes of the companies and the amounts of individual holdings. Schedule 5-C lists the holdings of bonds, debentures and notes by affiliates. Schedule 5-D shows certain information with respect to preferred stock of the companies held by the public, and Schedule 5-E sets forth the holdings of preferred stock by affiliated interests. Schedule 5-F contains data on market prices, earnings per share, dividends, and so forth, on common stock of the companies held by the public. Lastly, common stock holdings by affiliates of the companies are listed in Schedule 5-G.

The summary at Page 5 of Schedule 5 discloses that 25 natural gas pipe line companies listed therein had securities outstanding as of the latest date for which information is available in the aggregate amount of $657,399,135. These outstanding securities consisted of bonds, debentures and notes in the amount of $328,447,620, or 50.0 per cent of the total, preferred stocks in the amount of $25,131,000 or 3.8 per cent, and common stocks in the amount of $303,820,515, or 46.2 per cent. The respective amounts of bonds, debentures and notes outstanding, together with the relationship

of each to the total amount of all securities outstanding, were as follows:

	Amount	Per Cent of All Securities Outstanding
First mortgage bonds	$188,038,523	28.6%
Debentures	39,350,000	6.0
Notes	101,014,097	15.4
Total	$328,447,620	50.0%

Of the total amount of bonds, debentures and notes outstanding, affiliated interests held $182,408,097, or 55.5 per cent, institutional holdings totalled $126,628,000, or 38.6 per cent, and holdings by the general public amounted to $19,411,523, or 5.9 per cent. Of the total of $25,131,000 of preferred stocks outstanding, holdings by affiliated interests amounted to $23,639,200, or 94.1 per cent, and the remainder, or 5.9 per cent, was held by the public. Of the common stock outstanding, amounting to $303,820,515, the public held $10,394,418, or only 3.4 per cent, and affiliated interests owned the remainder.

Applying similar calculations to the total of all outstanding securities of the 25 companies listed in Schedule 5, it is found that the proportion held by the general public was 4.7 per cent and that held by institutional investors was 19.3 per cent, while the proportion held by affiliated interests constitutes 76.0 per cent of the total.

The foregoing calculations clearly indicate the predominant position held by affiliated interests with respect to the ownership of outstanding securities of natural gas pipe line companies. To summarize, affiliated interests owned 55.5 per cent of the bonds, debentures and notes, 94.1 per cent of the preferred stocks, and 96.6 per cent of the common stocks of the 25 companies listed in Schedule 5. On the other hand, only 5.9 per cent of bonds, debentures and notes, 5.9 per cent of preferred stocks, and 3.4 per cent of common stocks of the 25 companies were held by the general public.

With respect to each of the companies listed in Schedule 5, except Canadian River Gas Company and Colorado Interstate Gas Company for which it is believed an adequate description will appear in the record of the present proceedings, a brief statement is presented in the following paragraphs describing the nature and location of operations, source of supply, and other pertinent data. Although some of the information presented below is given as of the end of 1938, it is believed that it will suffice as a general description of the companies' operations.

The Arkansas Louisiana Gas Company is engaged in the production, transmission and distribution of natural gas. Its sources of supply are the Monroe, Richland and Elm Grove fields in Louisiana and certain other fields in Texas and Arkansas. The company supplies natural gas to a large number of communities in Arkansas, Louisiana, and Texas. The principal communities served at retail are Little Rock, Arkansas; Shreveport, Louisiana; and Texarkana, Texas. Gas is sold at wholesale, among others, to Consumers Gas Company for distribution in the city of Hot Springs, Arkansas, and to other companies for distribution in two smaller communities in Arkansas.

The company has 1,371 miles of transmission lines and has 10 compressor stations with an aggregate rated capacity of 26,390 h.p. The First Mortgage, 2¾ per cent, 1940-1944 bonds in the amount of $3,300,000 were held, it is indicated on Page 1 of Schedule 5, by institutions.

Referring to Page 1 of Schedule 5-B, it will be seen that the $3,300,000 First Mortgage bonds above mentioned are held by the Guaranty Trust Company of New York and by the Central Hanover Bank & Trust Company, the former owning $2,800,000 of the bonds and the latter, $500,000 thereof. The first mortgage, 3½ per cent, 1945-1954 bonds in the amount of $9,700,000 were also owned by institutions, as is indicated in Schedule 5, and Schedule 5-B shows that the entire issue was owned by the following institutions in the amounts indicated:

Equitable Life Assurance Society of U. S.	$4,850,000
Metropolitan Life Insurance Company	3,550,000
Massachusetts Mutual Life Insurance Company	400,000
Sun Life Assurance Co. of Canada	350,000
Teachers Ins. & Annuity Association of America	300,000
Provident Mutual Insurance Co. of Philadelphia	250,000
	$9,700,000

The $6,500,000 of Debentures shown in Schedule 5 were all held by the Arkansas Natural Gas Corporation as is shown on Page 1 of Schedule 5-C. Common stock of the company outstanding consisted of 298,988 shares of an aggregate par value of $14,949,400. All of the common stock was held by affiliates and Schedule 5-G indicates that the entire issue in question was owned by the Arkansas Natural Gas Corporation, a subsidiary of the Cities Service system.

Chicago District Pipeline Company. This company is engaged in the purchase, transmission and sale of natural gas. Its gas transmission system consists of approximately 43 miles of 24-inch pipe line from Joliet, Illinois, to a point of connection with a transmission main of the Peoples Gas Light & Coke Company on the southern limits of the city of Chicago; approximately 1.3 miles of 20-inch pipe line from the company's 24-inch system to a point on the Illinois-Indiana State line; approximately 31 miles of 24-inch pipe line and 4 miles of 20-inch pipe line forming a connection with a transmission main of the Peoples Gas Light & Coke Company on the western limits of the city of Chicago. The Chicago District Pipeline Company purchases its gas requirements from the Natural Gas Pipeline Company of America. The largest sales by the Chicago District Pipeline Company are to the Peoples Gas Light & Coke Company. The notes payable of the company in the amount of $2,769,897 were owned by the Natural Gas Investment Company, as shown in Schedule 5-C. The common stock, consisting of 7,500 shares of no par value, with book amount of $659,000, was all held by the Natural Gas Investment Company, as indicated in Schedule 5-G.

Cities Service Gas Company. This company is engaged in the production and transmission of natural gas. It ob-

tains its gas from a number of fields in Texas, Oklahoma, and Kansas, including particularly, the Panhandle field in Texas and the Oklahoma City and Seminole fields in Oklahoma. The company's system consists of 4,273 miles of pipe lines and 29 compressor stations. Gas is sold at wholesale to distributing companies serving 229 communities, including Kansas City, St. Joseph, Springfield, and Independence, Missouri; Bartlesville, Oklahoma; and Kansas City, Leavenworth, Topeka and Wichita, Kansas.

The company has outstanding First Mortgage 3¼ per cent and 3¾ per cent bonds due 1940-1954 in the amount of $35,000,000, all of which bonds are held by institutions. The 3¾ per cent bonds, aggregating $20,000,000, were owned outright by two insurance companies, as indicated on Page 1 of Schedule 5-B, and the remaining $15,000,000, 3¼ per cent bonds were held as collateral for loans, as noted on Page 1 of Schedule 5.

The $8,000,000 Debentures, 5½ per cent, 1956, were held by the Cities Service Company and subsidiaries, as shown in Schedule 5-C. The common stock of the company consisting of 350,000 shares of no par value was all held by the Empire Gas & Fuel Company, a Cities Service subsidiary, as shown in Schedule 5-G.

The El Paso Natural Gas Company is an operating and holding company. It purchases gas from producers in southeastern New Mexico. The company and its subsidiaries are engaged in the business of purchasing natural gas from producers in New Mexico, transmitting it through a pipe line system and selling it at wholesale to public utility and industrial customers located principally in or near El Paso, Texas; Hurley, New Mexico; Phoenix, Arizona; and Cananea, Mexico. The pipe lines of the company and its subsidiaries consist of 1,331 miles including duplicate lines, branch lines, and gathering lines. The First Mortgage, 3½ per cent bonds of the company in the amount of $6,000,000 and its First Mortgage, 3 per cent bonds in the amount of $3,000,000, were held by the following institutions, as is shown on Page 2 of Schedule 5-B:

Sun Life Assurance Co. of Canada	$ 900,000)
Equitable Life Asurance Society of U. S.	2,500,000)
Massachusetts Mutual Life Insurance Company	275,000)*
Metropolitan Life Insurance Company	2,000,000)
Mutual Life Insurance Co. of New York	475,000)
Harvard College	100,000
Total, First Mortgage, 3½% bonds	$6,000,000

All of the preferred stock of the company, consisting of 7 per cent cumulative preferred stock of a par value of $100 per share, was owned by the public, and the common stock of the company was likewise held by the public.

The Hope Natural Gas Company is engaged in the production, purchase, transmission and distribution of natural gas. It is one of the oldest and most important gas subsidiaries of the Standard Oil Company (New Jersey) in the Appalachian field. The company's operations are confined to the State of West Virginia, but its main outlets are sales to the East Ohio Gas Company which operates in the State of Ohio, and to the Peoples Natural Gas Company which operates in the state of Pennsylvania, both of which companies are likewise subsidiaries of the Standard Oil Company (New Jersey). The only security outstanding of the Hope Natural Gas Company was common stock, all of which was owned by the Standard Oil Company (New Jersey).

The Houston Gulf Gas Company is engaged in the production, purchase, transmission and wholesale distribution of natural gas. The principal producing properties of the company are located in South Texas. The main pipe lines extend from the field in South Texas to Houston, Texas, and industrial areas in that vicinity. Pipe lines of the company aggregate 482 miles.

The company sells at wholesale substantially all requirements of about 18 communities in southern Texas. The company is also engaged in the production, transportation and sale of a limited amount of crude oil. The bonds and debentures of the company, as shown in Schedule 5, were

*The First Mortgage, 3 per cent bonds, were held by these five insurance companies, the amounts held by each not being reported.

largely held by the public. The company's outstanding notes were held by an affiliate, United Gas Pipeline Company, as shown in Schedule 5-C. The preferred stocks were largely held by an affiliate, United Gas Pipeline Company, as indicated in Schedule 5-E. Most of the common stock of the company was also held by the United Gas Pipeline Company, a subsidiary of United Gas Corporation, as shown in Schedule 5-G.

The next company is Interstate Natural Gas Company, Inc., whose securities outstanding consisted of common stock, some of which was held by the public but the major portion of which, however, was held by Standard Oil Company (New Jersey) and the Columbian Carbon Company, as indicated in Schedule 5-G. The Interstate Natural Gas Company, Inc., owns 170 miles of main pipe line, 22 inches in diameter, running from the Monroe Gas Field in Northern Louisiana to Baton Rouge, Louisiana. It serves at wholesale companies supplying natural gas to Natchez and Baton Rouge, and it connects at Baton Rouge with a pipe line of the United Gas Pipeline Company, which supplies gas for resale in the city of New Orleans.

The Lone Star Gas Company is engaged in the production, transmission and distribution of natural gas and also, to some extent, in the production of crude oil. Its transmission lines are in two service groups. A main group extends from the southeastern extremity of the Texas Panhandle to Fort Worth and Dallas, where it connects with transmission and distribution lines which extend through the central part of Texas and southern Oklahoma.

The company distributes gas directly in Fort Worth. The secondary group extends in a southwesterly direction from Brownwood, Texas, to San Angelo, Texas. The company owns 4,384 miles of mains and field lines and 21 compressor stations. The company had outstanding notes in the amount of $16,600,000 which were held by the Lone Star Gas Corporation, parent company, as shown in Schedule 5-C. All of the company's outstanding common stock was held by the same holding company, as indicated in Schedule 5-G.

The Kentucky-West Virginia Gas Company is engaged in

the production, transmission and sale of natural gas. The company owns and operates natural gas properties and 518 miles of pipe line in the states of Kentucky and West Virginia.

Practically the entire output is furnished to the Louisville Gas & Electric Company and the Philadelphia Company and subsidiaries. As shown in Schedule 5-E all of the 5 per cent cumulative first preferred stock of this company was held by Louisville Gas & Electric Company, and all of the 7 per cent cumulative second preferred was held by the Philadelphia Company and subsidiaries. The company's common stock was owned by the Louisville Gas & Electric Company (40 per cent) and the Philadelphia Company (60 per cent), as indicated in Schedule 5-G.

The Memphis Natural Gas Company is engaged in the purchase and transmission of natural gas. The company's main pipe line extends from the Monroe field in Louisiana to Memphis, Tennessee, a distance of 402 miles. All of the notes of the company were held by institutions and somewhat more than half of the common stock of the company was held by the public while the remainder was held by Commonwealth Gas Corporation.

The Mississippi River Fuel Corporation is engaged in the transmission of natural gas. The company owns and operates 450 miles of main pipe line from Louisiana to St. Louis, Missouri, together with main compressor stations and branch pipe lines incident to the delivery of natural gas to industrial consumers and to distributors to communities along the route. All of the first mortgage bonds of the company were held by institutions. The 6 per cent notes payable and all the common stock were held by affiliates.

The Michigan Gas Transmission Corporation is engaged in the purchase and transmission of natural gas. The company owns a transmission line which commences at the Illinois-Indiana State line near Dana, Indiana, connecting at that point with the main line of the Panhandle Eastern Pipe Line Company, and extends to Muncie, Indiana, where it connects with the line of the Ohio Fuel Gas Company.

The company also owns a pipe line extending to Detroit, Michigan, from Zionsville, Indiana, through which it transports natural gas to Detroit for the account of Panhandle Eastern Pipe Line Company. Natural gas is purchased from Panhandle Eastern Pipe Line Company and sold by the company at wholesale only.

All of the company's outstanding securities, consisting of notes payable amounting to $6,470,500 and $2,240,000 of common stock, were held by Columbia Gas & Electric Corporation.

The Natural Gas Pipeline Company of America is engaged in the purchase and transmission of natural gas. Gas from the Texas Panhandle field is purchased by the company from Texoma Natural Gas Company and Colorado Interstate Gas Company at a point of delivery near Gray, Oklahoma. The company transports the gas through it own transmission system extending through the states of Oklahoma, Kansas, Nebraska, Iowa, and Illinois, to Joliet, Illinois, where the gas is delivered to Chicago District Pipeline Company which sells the gas to utilities for distribution in the Chicago area. Comparatively small amounts of gas are sold by the company at different points along its main transmission line, the largest proportion of such gas being sold for resale to communities in Iowa.

The company's securities, consisting of First Mortgage 6 per cent bonds due 1946 in the amounts of $42,300,000 and $3,000,000 book amount of common stock, were all held by affiliated interests.

The New York State Natural Gas Corporation is engaged in the production and transmission of natural gas in northwestern Pennsylvania and southwestern New York where gas is produced and transported for sale to distribution systems of others in several cities and towns in central New York, of which Syracuse, Auburn, Cortland and Ithaca are the most important. The system, including pipe lines of an affiliate, Keuka Construction Corporation, consists of approximately 256 miles of pipe lines owned or leased gas rights on approximately 325,500 acres of land and 36 wells.

The company's securities, consisting of income notes and

common stock, were all owned by Lycoming United Gas Corporation, a subsidiary of Standard Oil Company (New Jersey).

The Northern Natural Gas Company is engaged in the production, purchase, transmission and distribution of natural gas. The company and subsidiaries own and operate approximately 2,200 miles of natural gas transmission lines, extending from the Texas Panhandle and Hugoton, Kansas, fields to South Dakota and Minnesota. The main transmission lines are largely 24 inches in diameter. Natural gas is sold principally at wholesale in Iowa, Kansas, Nebraska, South Dakota, and Minnesota. Cities supplied at wholesale include Omaha and Lincoln, Nebraska; Council Bluffs, Des Moines, Sioux City, Mason City and Fort Dodge, Iowa; Sioux Falls, *South* Dakota; and Minneapolis and Rochester, Minnesota. The company's First Mortgage, 3¼ percent, 1954 bonds and the 2⅛ percent notes due 1940-1946 were all held by institutions. The bonds were sold to the institutions in August of last year. The common stock of the company was all held by three affiliates.

The Panhandle Eastern Pipe Line Company is engaged in the production, purchase, transmission and distribution of natural gas. The company owns a natural gas transmission system extending from the Amarillo gas field in the Texas Panhandle through Oklahoma, Kansas, Missouri and Illinois to a point near Dana, Indiana, adjacent to the Illinois-Indiana State line. The major portion of the gas transmitted is sold at wholesale to other gas transmission and distributing companies and the balance is sold to industrial consumers. The principal distributing company served is the Michigan Consolidated Gas Company which supplies gas to consumers in Detroit, Michigan, and vicinity. The company's transmission system consists of approximately 2,100 miles of pipe line. The First Mortgage, 4 percent, 1952 bonds of the company were owned in part by the public, but largely by institutions. The bonds were issued in March 1937. The preferred stock, both Series A and Series B, was all held by the Columbia Oil & Gasoline Corporation, and the common stock was held by the Columbia Oil & Gasoline Corporation and by the Missouri-Kansas Pipe Line Company.

The Pittsburgh & West Virginia Gas Company is engaged in the production, purchase, transmission, distribution and sale of natural gas. The company operates 1,375 miles of pipe line and serves gas to 44 communities in the State of West Virginia, and sells gas at wholesale to a number of companies. The outstanding notes of the company, amounting to $13,090,446, were held by affiliated companies. All of the common stock of this company was held by Philadelphia Company, a Standard Gas & Electric subsidiary."

The Southern Natural Gas Company is engaged in the transmission of natural gas. The company purchases gas under long term contract from the Monroe and Richland fields in Louisiana and transports gas from these fields to markets in Mississippi, Alabama and Georgia. The main line extends eastward to Atlanta, Georgia, and comprises approximately 504 miles of pipe line mileage but parallel transmission lines and a branch line to Columbus, Georgia, bring the total length of the system to 1,300 miles. Gas is sold chiefly to 12 distributing companies. The First Mortgage, 4½ percent, 1951 bonds were held almost equally by the public and by institutions. The First Mortgage, 4½ per cent, 1952 bonds were all held by institutions. The Adjustment Mortgage bonds of 1960 were held in approximately equal amounts by the public and by affiliates, a small portion being held by institutions, and notes in the amount of $800,000 were held by banks. Of the common stock of an aggregate par value of $5,189,776, $2,698,684 was in the hands of the public and the balance was owned by affiliates. The Adjustment Mortgage bonds were issued in 1936, pursuant to a reorganization plan, to holders of predecessor company's convertible 6 percent debentures, 1944, and to holders of filed and allowed claims on the basis of $500 of the new adjustment bonds, plus 48 shares of new Class A stock, for each $1,000 principal amount of old debentures and each $1,030 of claims. The Class A stock together with Class B stock was subsequently converted into the persently outstanding common stock.

The Texoma Natural Gas Company is engaged in the production and transmission of natural gas. The company owns a 24-inch main pipe line extending approximately 76

miles from Fritch, Texas, to a point near Gray, Oklahoma, where it connects with the transmission system of the Natural Gas Pipeline Company of America. The company produces all of its requirements from its own wells in the Amarillo gas field in the Texas Panhandle, and sells the major portion of the gas produced to the Natural Gas Pipeline Company of America. The company's properties also include a refinery at Fritch, Texas, for the purification of natural gas and the extraction of gasoline.

The outstanding securities of the Texoma Natural Gas Company consist of $18,750,000 principal amount of Gas & Pipeline Mortgage, 6 percent, 1946 bonds, all owned by Natural Gas Pipeline Company of America, and 10,000 shares of no-par-value common stock stated, at the book amount of $500,000, which are owned by a group of five affiliates.

The United Fuel Gas Company is engaged in the production, purchase, transmission and distribution of natural gas. The company's production operations are carried on in West Virginia and it sells principally at wholesale to distribution companies in West Virginia, Kentucky and Ohio, although it also supplies natural gas to many communities in West Virginia as well as in southeastern Ohio at retail. The 4 percent notes of the company, due 1940-1946, in the amount of $4,500,000 were all held by institutions. Other notes aggregating $14,535,000, were held by the Columbia Gas & Electric Corporation and all of the common stock was held by the same company.

The United Gas Pipe Line Company is engaged in the purchase, and transmission of natural gas. Gas is purchased principally at the wells in Texas, Louisiana and Mississippi, and is gathered and transported for sale to distributing systems of United Gas Corporation, to industrial corporations, and to others. The company owns 4,743 miles of main pipe lines in Texas, Louisiana, Mississippi, Alabama and Florida. The company, therefore, has long pipe lines serving a very wide territory. All of the outstanding securities of the company were held by affiliates, the debentures and common stock being owned by the United Gas Corporation, and the bonds being held by Electric Bond & Share Company.

The United Natural Gas Company is engaged in the production, purchase, transmission and distribution of natural gas and obtains its supply from northwestern Pennsylvania. The company supplies gas to several towns in Pennsylvania and a large quantity of gas is sold to Iroquois Gas Corporation, an affiliated company, for distribution in western New York. The only security the company had outstanding was common stock, all of which was held by the National Fuel Gas Company.

The Warfield Natural Gas Company is engaged in the production, purchase, transmission, distribution and sale of natural gas. The company operates approximately 500 miles of pipe line, including gathering and transmission mains, and supplies gas to a number of communities in the State of Kentucky, the principal community being Ashland. The company's principal customers are affiliated companies. The notes of the company outstanding in the amount of $9,790,000 as well as all of the company's common stock are held by the parent company, Columbia Gas & Electric Corporation.

Schedule 5-A—Schedule 5-A lists the bond and debenture issues of the companies included in Schedule 5 of which any portion was held by the public. The schedule also lists the bond issues of such companies which were outstanding in the hands of the public during a part of the period 1937-1939, but which had been retired before the end of that period. For each issue the schedules shows the name of the issuing company, a description of the issue, the total principal amount outstanding, the portion thereof held by the public and the ratings assigned by Moody's and Poor's publications. The schedule next shows the averages of high and low market prices for the years 1937 to 1939, inclusive, and for the first nine months of 1940, together with the approximate yields to maturity based thereon. This information is followed by data on market prices as of September 30, 1940, and yields to maturity based on such prices. The last two columns of the schedule show the respective current call prices for general and sinking fund purposes.

The first issue shown in Schedule 5-A consists of First Mortgage 4 percent Bonds, due 1951, of Arkansas Louisiana

Gas Company. This issue, which carried Moody's and Poor's A rating, was offered to the public in 1936, as shown in Schedule 6, at a price of 98 to yield 4.18 percent to purchasers. On the basis of average high and low market prices the yield to investors was slightly less than 4.00 percent in 1937 and 1938, and 3.69 percent in 1939. The bonds were retired in connection with refunding operations in October 1939, when the company sold privately one issue of short-term, and one issue of long-term, serial bonds at par to yield 2.75 percent and 3.50 percent, respectively, to purchasers.

The next issue listed is that of El Paso Natural Gas Company, consisting of First Mortgage 4½ percent Bonds, due 1951. These bonds were also offered to the public in 1936, as shown in Schedule 6, and were *wold* at a price of 98½ to yield 4.64 percent. The issue carried Moody's Ba rating and Poor's B** rating. The bonds were selling above par in 1937 and 1938 to yield 4.17 percent and 4.09 percent, respectively, but were retired in January 1939 with the proceeds of an issue of 3 percent Serial Notes and a new issue of First Mortgage 3½ percent Bonds, due 1953. The new bonds were sold privately at 99 to yield 3.59 percent to purchasers. In 1940 the company sold privately $3,000,000 principal amount of First Mortgage 3 percent Bonds, due 1955, at 98½ to yield 3.13 percent.

The next issue shown on Schedule 5-A is that of Houston Gulf Gas Company designated as First and Collateral 6's of 1943. These bonds were originally offered in April 1928 at 99½ in the amount of $11,000,000. At December 31, 1939, $4,238,000 principal amount was outstanding, of which $3,777,000 was held by the public. The bonds are indicated as carrying Moody's Ba rating and Poor's B** rating. Moody's rating was revised from Baa to Ba on October 28, 1939, but Poor's rating has not been revised.

The 6½ debentures, due in 1943, were originally offered in May 1928 at 99 in the principal amount of $8,000,000. They were convertible at par into 7 percent preferred stock, Series B, until March 31, 1938. The amount outstanding at December 31, 1939 was $1,850,000 of which $1,453,000 was held by the public. Moody's and Poor's ratings are re-

ported at B and B*, respectively. Moody's rating on the debentures was also revised in conjunction with its revision of rating on the 6 percent bonds, in this instance the rating having been lowered from Ba to B on October 28, 1939 and, as above, with no change in Poor's rating.

As indicated in Schedule 5-A, the outstanding bonds and debentures of Houston Gulf Gas Company were called for redemption on October 1, 1940, at 101. They were called in connection with proposed refunding operations of United Gas Corporation which, through United Gas Pipeline Company, owns a 99.6 percent interest in the common stock of Houston Gulf Gas Company. Inasmuch as notice of call was published prior to September 30, 1940, the September 30 bid price in each instance was the same as the call price. However, market prices for 1940 preceding notice of call averaged 102¾ for the bonds and 101⅞ for the debentures, resulting in yields of 5.00 percent and 5.82 percent, respectively. These yields were somewhat lower than those for 1939 but were substantially below the corresponding yields of 5.75 percent and 6.58 percent for 1937.

The First Mortgage 4 percent Bonds, due 1952, of Panhandle Eastern Pipe Line Company were quoted on September 30, 1940, at 103⅜, or 1⅜ points above call price, resulting in a yield of 3.63 percent. These bonds, which carry both Moody's and Poor's A rating, were sold by public offering in March 1937 on a 4.23 percent yield basis, as shown in Schedule 6. However, the yield established for the remainder of that year, based on average market price, was 4.06 percent. The yield declined to 3.85 percent in 1938 and to 3.77 percent in 1939, and, as above indicated, was still lower in 1940. Of the $23,000,000 principal amount of bonds outstanding, holdings by the public amounted to $4,918,000.

The bonds of Southern Natural Gas Company listed in Schedule 5-A include two issues, consisting of First Mortgage 4½ percent Bonds, due 1951, Baa and B** rating, and Adjustment Mortgage 6 percent Bonds, due 1960, B and B* rating. On September 30, 1940, the 4½ percent bonds were quoted at 106⅝, or 1⅝ points above call price, resulting in a yield of 3.75 percent while the 6 percent bonds were quoted at 100½ point above call price, resulting in a yield of 5.96

percent. The current yields on both bond issues are substantially lower than the 1937 yields of 4.70 percent for the 4½ percent bonds and 7.44 percent for the 6 percent bonds. Public holdings of both the 4½ percent and 6 percent issues constituted approximately one-half of the total principal amount outstanding.

It will be noted that the total shown in Schedule 5-A under the column "Held by Public," $19,411,523, is in agreement with the total designated as Bonds, Debentures and Notes Held by the Public in the summary on Page 5 of Schedule 5.

An additional fact which should be mentioned concerning the issues listed in Schedule 5-A is that in each instance the trust indenture contains provisions for the gradual retirement of the issues through sinking fund operations.

Schedules 5-B and 5-C—These schedules show the individual holdings by institutions and affiliates, respectively, of bonds, notes and debentures of the companies included in Schedule 5.

Schedule 5-D—Schedule 5-D contains similar information with respect to preferred stock held by the public as was shown in Schedule 5-A for bonds and debentures of the companies listed in Schedule 5. However, Moody's publications do not assign ratings to capital stock issues; therefore, only Poor's rating is given.

The schedule shows that only two of the 25 companies listed in Schedule 5 had preferred stock issues of which any part was outstanding in the hands of the public, and the public held such a small portion of the preferred stock issues of Houston Gulf Gas Company that no market quotations for those issues were available.

It will be seen that the public held the entire amount of outstanding 7 percent preferred stock of El Paso Natural Gas Company, of which $600,000 appears to have been issued at date of organization in 1928 and the remainder through subsequent conversion of other securities. A yield of 6.36 percent is indicated for this stock on the basis of a September 30 bid price of 110. In this connection, it is of

interest to note that the bid price for this stock was equal to the call price.

End of month bid prices on the preferred stock of El Paso Natural Gas Company ranged from 94 to 107 in 1937, 102 to 109 in 1938, and 108 to 111 in 1939. The dividend record on this stock discloses that dividends in arrears amounting to $26.25 per share were cleared up on June 22, 1936, since which date dividends have been paid regularly.

The total of $1,491,800, shown as the last figure in the column headed "Held by Public" on Schedule No. 5-D is in agreement with the amount shown in the second column of the summary on Page 5 of Schedule 5 opposite Preferred Stock.

Schedule 5-E—It is believed that Schedule 5-E, which shows individual holdings by affiliated interests of preferred stock of the companies listed in Schedule 5, requires no comment.

Schedule 5-F—Schedule 5-F gives certain information relative to the common stock issues of the six companies included in Schedule 5 which had common stock outstanding in the hands of the public.

The schedule shows for each issue the name of the issuing company, the number of shares and book amount of common stock outstanding, the portion thereof *held* by the public, the par value, if any, and Poor's rating. Next are shown the earnings per share for the years 1937, 1938 and 1939, and for the latest twelve months for which reported; the averages of high and low market prices for the years 1937 to 1939, inclusive, and for the first nine months of 1940; and the earnings-price ratio, i. e., the percent of earnings per share to market price, for the periods indicated. Finally, there is shown for each issue the earnings-price ratio based on market price at September 30, 1940 and on latest earnings per share reported.

Market quotations could not be obtained for the common stock of Houston Gulf Gas Company as relatively few shares were held by the public. None of the common stock of Panhandle Eastern Pipe Line Company was held by the public

prior to September 1939. The presently outstanding common stock of Southern Natural Gas Company has been outstanding only since its issuance in May 1939 in exchange for the Class A and Class B stock formerly outstanding. Accordingly, only three of the six common stock issues listed in Schedule 5-F have been held by the public throughout the period 1937-1940, namely, those of El Paso Natural Gas Company, Interstate Natural Gas Company, Inc., and Memphis Natural Gas Company.

The earnings-price ratios of the respective common stock issues for the periods and on the basis indicated in Schedule 5-F are set forth in the following summary:

Company	Common Stock Earnings—Price Ratios 1937	1938	1939	1940	9/30/40
El Paso Natural Gas Co.	13.79%	14.08%	10.60%	11.37%	11.70%
Houston Gulf Gas Co.	(No Market Quotations)				
Interstate Natural Gas Co.	9.90	10.02	8.88	9.08	8.79
Memphis Natural Gas Co.	16.63	13.96	15.74	14.84	13.68
Panhandle Eastern Pipe Line Co.	—	—	9.61	13.03	11.97
Southern Natural Gas. Co.	—	—	18.14	20.37	18.25

Schedule 5-G—This schedule contains a list of the individual holdings by affiliates of common stock of the companies listed in Schedule 5. None of such common stock is held by institutions.

Schedule 6—Schedule 6 contains a compilation of bond issues sold by the natural gas companies listed in Schedule 5 during the years 1935 to 1940, inclusive. The issues are grouped according to Moody's ratings, and for each issue there appears the name of the issuing company, the approximate offering date, a description of the issue, principal amount of the offering, net cost to company and price to public. In addition, the schedule shows the distribution of holdings of those issues still outstanding among public holders, institutional holders, and affiliates.

Under "Net Cost to Company" are shown the net proceeds to the company per $100 of principal amount after underwriters' commissions and other expenses and in the adjoining column a percentage representing the annual cost of the funds borrowed calculated to maturity. Under "Price to Public" are shown the selling price to the public and in the adjoining column a percentage representing the annual yield to purchasers calculated to maturity.

The first issue shown in Schedule 6 is that of Arkansas-Louisiana Gas Company offered in July 1936, which consisted of First Mortgage, 4 percent bonds, due 1951 in the amount of $10,000,000, with a rating of A. On this issue the yield to the public was 4.18 percent and cost to the company 4.62 percent. These bonds were refunded in September 1939 when, as shown in the lower portion of the schedule, $3,300,000 First Mortgage 2¾ percent Series A bonds due 1940-44 and $9,700,000 First Mortgage 3½ percent Series B bonds due 1945-54 were sold privately at par to yield 2.75 percent and 3.50 percent, respectively. The cost to the company was 3.01 percent on the 2¾ percent bonds and 3.59 percent on the 3½ percent bonds.

The Panhandle Eastern Pipeline Company in March 1937 issued $24,000,000 of first mortgage 4 percent *conds* due in 1952, with rating of A, at a yield of 4.23 percent and cost to the company of 4.46 percent. These bonds were selling to yield 3.63 percent at September 30 and the market price was above call price at that date.

The Southern Natural Gas Company, in November 1936, issued $15,000,000 principal amount of first mortgage 4½ percent bonds due in 1951, rating Baa, at a yield of 4.50 percent and net cost to the company of 4.85 percent. At September 30 these bonds were selling at a price in excess of call price on the basis of a yield of 3.75 percent. In *Octover* 1937, Southern Natural Gas Company negotiated the private sale of $650,000 principal amount of 4½ percent first mortgage bonds due in 1952 at a yield to purchasers of 4.71 percent. The proceeds were deposited with the corporate trustee to be drawn against for expenditures made for bondable property.

The El Paso Natural Gas Company, in June 1936, issued

first mortgage 4½ percent bonds due 1951, rating Ba, in the amount of $7,500,000, at a yield to the public of 4.64 percent and cost to company of 5.06 percent. Also in June 1936, the company sold $3,750,000 principal amount of 4¾ percent convertible debentures, due in 1946, at a yield to investors of 4.75 percent and cost to company of 5.38 percent. The debentures carried Moody's B rating. It is reported that the conversion privilege was exercised by holders of virtually the entire debenture issue, such conversion resulting in the issuance of approximately 225,000 of the 600,000 presently outstanding shares of the company's common stock. The same company in October 1937 sold privately an issue of $1,200,000 first mortgage 4 percent bonds due in 1952 at a yield to purchasers of 4.20 percent, the purpose of the issue having been to reimburse the company's treasury for construction expenditures previously made and to provide additional working capital.

In connection with refunding operations the El Paso Natural Gas Company in December 1938 sold privately a $6,000,000 issue of first mortgage 3½ percent bonds, due in 1953, at a yield to purchasers of 3.59 percent. The proceeds from this issue, together with funds obtained through the issuance of 3 percent Serial Notes in the amount of $4,000,000 to Chase National Bank, were applied to the redemption on January 16, 1939, of the outstanding principal amount of bond and debenture issues sold in 1936, 1937 and 1938, and to retire $600,000 of short-term notes and for other corporate purposes.

In June and July 1940 the El Paso Natural Gas Company sold *privately* two issues of first mortgage 3 percent bonds due in 1955 in the aggregate principal amount of $3,000,000 to yield 3.13 percent. The proceeds from these issues are reported to have been used for the retirement before maturity of $1,500,000 of bank loans and for other corporate purposes.

The last group of issues shown in Schedule 6 includes all issues which were sold privately during the period 1935-1940. It will be noted that Moody's assigns no rating to issues that are sold in this manner.

The first item shown is the first mortgage 4 percent bond issue, due 1952, of the Mississippi River Fuel Corporation

sold in February 1937 to yield 4 percent at an assumed price of par to purchasers.

The issues sold privately by El Paso Natural Gas Company and Southern Natural Gas Company have already been referred to above.

The Cities Service Gas Company in December 1938 issued $20,000,000 principal amount of 3¾ percent first mortgage bonds due serially in the years 1947-54. The bonds were sold privately at par to yield 3.75 percent. At the same time the company negotiated bank loans in the amount of $15,000,000 secured by an equal principal amount of first mortgage 3¼ percent bonds due 1940-46.

The Northern Natural Gas Company, in August 1939, issued first mortgage 3¼ percent bonds due 1954 in the principal amount of $16,000,000 at a yield to the public of 3.25 percent, and cost to the company of 3.35 percent. These bonds were issued for refunding purposes. At the same time the company issued unsecured promissory notes to the Chase National Bank in the amount of $6,000,000 carrying interest at 2⅛ percent and maturing over the period 1940-1946. It was reported that the proceeds from these unsecured promissory notes were to be used as follows: $3,600,000 for construction of a 240-mile pipe line from Sioux City, Iowa, to Minneapolis; $1,200,000 for compressor station property, lateral pipe lines, distribution system properties of subsidiaries and development costs, all directly incidental to the pipe line; and $1,200,000 to defray cost of additions and betterments to the company's existing property, including distribution systems of subsidiaries, etc.

The issues of Arkansas-Louisiana Gas Company in September 1939 have already been described.

In conclusion, with respect to Schedule 6, there are two additional facts which should be mentioned. In the first place, a characteristic feature of natural gas company bond issues, arising from the fact that the business of such companies is based on exploitation of a wasting resource, is their relatively short life to maturity. As will be seen from the schedule this life generally does not exceed 15 years, whereas for electric utility bond issues the life is generally 25 or 30 years. For example, of the 15 issues listed in

Schedule 6, eleven have a 15-year life to maturity, one has a 10-year life, and three have serial maturities. Of these three, the last maturity date is 16 *yeats* from date of issue in one instance; 15 years in another instance, and only five years in the case of Arkansas-Louisiana Gas Company's first mortgage 2¾ percent bonds due 1940-44.

Finally, in the case of each of the bond issues listed in Schedule 6, the trust indenture contains provisions relative to sinking fund requirements with a view toward the gradual retirement of the bonds over the life of the issue. The only exceptions that will be noted are the three issues having serial maturities, and a provision for serial maturities accomplishes the same purpose as redemption through sinking fund operations.

In the preceding discussion with respect to the ownership, issuance, prices and yields of securities of natural gas pipe-line companies, reference has been made to the limited data available regarding yields on securities of such companies because of the predominant ownership of their securities by affiliated interests. Moreover, the facts that ten of the fifteen bond issues sold by such companies in the period since 1935 were disposed of privately by negotiation with institutional investors has had the effect of limiting the number of bonds of representative companies actually traded in on the market. Consequently, with only 5.9 percent of bonds, debentures and notes, 5.9 percent of preferred stocks, and 3.4 percent of the common stocks of a representative group of 25 companies being outstanding in the hands of the public and traded in on the market, it follows that caution must be exercised in relying upon the limited data available with respect to market appraisal of securities of natural gas pipe-line companies in attempting to ascertain the opportunity cost of capital under existing market conditions for particular companies engaged in natural gas pipe-line operations.

Corporate Affiliations of Canadian River Gas Company, Colorado Interstate Gas Company, and Colorado-Wyoming Gas Company and Recent Financing by Affiliated Companies

Chart 4—This chart is presented for the purpose of showing the corporate affiliations of the companies involved in

the present proceedings. The chart shows that all of the common stock of Canadian River Gas Company is owned by Southwestern Development Company whose stock, in turn, is owned by Consolidated Oil Corporation (51 percent) and by The Mission Oil Company (47.28 percent).

It will be noted that the Southwestern Development Company also controls the Amarillo Oil Company and the Clayton Gas Company, two customer companies of Canadian River Gas Company, and has a substantial minority stock interest in Natural Gas Pipeline Company of America and in Texoma Natural Gas Company. The Natural Gas Pipeline Company of America purchases 25 per cent of its gas requirements from Colorado Interstate Gas Company which in turn obtains its total requirements from the Canadian River Gas Company, and deliveries by Colorado Interstate Gas Company are made to Natural Gas Pipeline Company of America through facilities leased from Texoma Natural Gas Company.

It will also be noted that two customer companies of Amarillo Oil Company, itself a subsidiary of Southwestern Development Company, are also wholly-owned subsidiaries of the latter company. The two customer companies referred to are the Dalhart Gas Company and the Panhandle Pipe Line Company. Another wholly-owned subsidiary of Southwestern Development Company is the Amarillo Gas Company which purchases its requirements from the Panhandle Pipe Line Company.

Further reference to Chart 4 will show that the Southwestern Development Company owns a 42.5 percent stock interest in Colorado Interstate Gas Company. An equal percentage of the latter's stock is owned by Standard Oil Company (New Jersey), and the remainder is held by Public Service Company of Colorado. Standard Oil Company (New Jersey) also owns a substantial minority interest in Natural Gas Pipeline Company of America.

With respect to Public Service Company of Colorado it will be noted that its common stock is 99.99 percent owned by Cities Service Power & Light Company. The latter company's stock is owned to the extent of 91.88 percent by the Cities Service Company, although such stock has been pledged by Cities Service Company under an indenture se-

curing its outstanding debentures, and voting rights therein have been relinquished to the trustee under that indenture. It will also be seen that the Cities Service Company owns a substantial minority interest in the capital stock of Natural Gas Pipeline Company of America.

Further examination of Chart 4 will disclose that Public Service Company of Colorado is the sole owner of all outstanding stock of Colorado-Wyoming Gas Company. The latter company's capital stock, consisting of 50,000 shares without par value, is reflected on its books at $1,501,000, and the company has no funded debt. Not shown on the chart is the 100 percent ownership by Public Service Company of Colorado of Cheyenne Light, Fuel & Power Company, which is engaged in the production and distribution of electric energy and in the purchase (from Colorado-Wyoming Gas Company) and distribution of natural gas in Cheyenne, Wyoming.

Schedule 7—This schedule contains certain information with respect to recent financing by companies affiliated directly and indirectly with the companies involved in the present proceedings. The data in Schedule 7 disclose financing by Consolidated Oil Corporation, Public Service Company of Colorado, Standard Oil Company (New Jersey), and Southwestern Development Company from 1936 through September 1940.

Consolidated Oil Corporation—The first issue listed for this company was sold in June 1936 and consisted of $50,000,000 of 3½ percent Debentures due 1951 which were offered to purchasers at 98 to yield 3.67 percent to maturity. In August 1938 the company negotiated the private sale at par to Equitable Life Assurance Society of 3⅜ percent Debentures due 1950 in the amount of $25,000,000.

Public Service Company of Colorado—In November 1939 this company offered publicly a $40,000,000 issue of First Mortgage 3½ percent bonds due 1964 at 102 to yield 3.38 percent, and a $12,500,000 issue of 4 percent Debentures due 1949 at 102 to yield 3.76 percent.

Standard Oil Company (New Jersey)—This company in May 1936 issued $85,000,000 principal amount of 3 percent

Debentures due 1961 of which $30,000,000 were offered publicly and $55,000,000 were sold privately to Rockefeller Foundations. The price to purchasers for the 3 percent Debentures was 98, resulting in a yield to maturity of 3.12 percent. In July 1938 the company issued $50,000,000 of 2¾ percent Debentures which were offered at 99 to yield 2.83 percent, and $35,000,000 of 1¾ percent—2½ percent Serial Notes offered at par of which $4,000,000 were *sold* to the Rockefeller Institute for Medical Research and the remainder were sold to the public. These notes were redeemed on July 2, 1940, funds for their redemption having been obtained from the issuance of $35,000,000 1¼ percent 1½ percent Promissory Notes sold at par. Of the latter notes $14,000,000 consisted of 1¼ percent notes due July 1, 1943 and 1944 which were sold privately to two purchasers, and $21,000,000 consisted of three 1½ percent notes due July 1, 1945, 1946 and 1947, respectively, evidencing borrowings from two banks.

Southwestern Development Company—On July 1, 1936, this company obtained a 2-4 percent loan, secured by collateral and due 1937-1941, from the Guaranty Trust Company of New York. The collateral consisted of certain of the company's holdings of securities in natural gas companies. Subsequently a reduction in interest rate from 4 percent to 3½ percent and an extension of maturity date were obtained with approval of the Securities and Exchange Commission and a new 3 percent collateral note, in exchange for the outstanding 3½ percent note, was issued on August 1, 1939.

In December 1936 and 1937 the company issued its unsecured 4 percent notes to holders of its common stock in payment of dividends at the rate of $43.18 per share in 1936 and $50.00 per share in 1937. The notes issued in December 1936 were redeemed on January 3, 1938.

On November 1, 1937, the company negotiated a $3,292,000 collateral loan, 4 percent, due 1939-1943, from the Guaranty Trust Company of New York. The collateral consisted of 6 percent First Mortgage and Collateral Trust Sinking Fund Gold Bonds, due January 1, 1945, of South Plains Pipe Line Company (assumed by West Texas Gas Company, a wholly-owned subsidiary of Southwestern Development

Company). The Southwestern Development Company obtained approval of the Securities and Exchange Commission of the sale of $3,150,000 principal amount of the above 6 percent bonds to the West Texas Gas Company and applied the proceeds to the discharge of the unpaid balance of its 4 percent collateral loan dated November 1, 1937. The West Texas Gas Company had obtained the funds with which to purchase the bonds from Southwestern Development Company through a 3 percent collateral loan, due January 1, 1945, made by the Guaranty Trust Company of New York.

The most recent financing by the Southwestern Development Company was undertaken in January 1940 when the company arranged with the Guaranty Trust Company of New York a 3 percent collateral loan, due, 1940-1945, in order to redeem the 4 percent unsecured notes issued for dividend purposes in December 1937 and to liquidate the balance of the 3 percent collateral loan dated August 1, 1939 and due July 1, 1944."

(Vol. 74, pp. 10794-10929.)

* * * * *

Q. Mr. Knapp, since the time of the completion of your rate of return study, Exhibit No. 225 and Exhibit No. 225-A, I will ask you whether you have had the opportunity to learn about the refunding operations of the Panhandle Eastern Pipeline Company that took place sometime during the month of January 1941.

A. I have.

Q. Could you explain briefly what additional information you obtained concerning those matters?

A. The Panhandle Eastern Pipe Line Company on January 30, 1941 made a public offering through an underwriting group of $12,000,000 principal amount of 3 per cent Series B first mortgage and first lien bonds, dated November 1, 1940 and maturing November 1, 1960. These bonds carrying Moody's A rating were offered to the public at a price of 102 per cent of principal amount to yield 2.87 per cent to purchasers.

In conjunction with the public offering of Series B bonds, the company sold privately $6,250,000 principal amount of Series A bonds to four banks and an insurance company.

The Series A bonds were dated November 1, 1940 and are to mature serially in equal annual instalments on November 1, 1946 to 1950, inclusive, with interest rates ranging from 1.65 per cent to 2.30 per cent according to maturity.

At the same time the company arranged for the private sale of $5,000,000 face amount of Serial notes due in four equal instalments on November 1, 1942 to 1945, inclusive, with interest rates ranging from .75 per cent to 1.50 per cent according to maturity.

It was reported that the proceeds of the three issues were to be applied to the reduction of all of the company's outstanding $22,500,000 principal amount of first mortgage and first lien Series A four per cent bonds due March 1, 1952.

Q. Does that complete your investigation as to that particular refunding operation?

A. It does.

(Vol. 83, pp. 12301-12302.)

* * * * * *

Q. Do these three volumes constitute your entire study of the rate of return as applied to this case?

A. I have studied some of the phases other than that.

Q. What other phases did you study?

A. I have read the contracts of Colorado Interstate Gas Company, Canadian River Gas Company, and some of the contracts of Colorado-Wyoming Gas Company—

Q. Some of the contracts?

A. —and I have read and studied testimony and cross examination of other witnesses on rate of return in this proceeding; I have also read some exhibits relating to natural gas reserves of these companies; I have tried to acquaint myself with the corporate background of these companies. I think in a general way that gives you what you want, if I understand your question.

Q. All of this reading you have just referred to as having done, did that involve any factor or factors material in the rate of return that should be in your judgment allowed in this case to any of these companies?

A. I don't know that I have a right to answer that ques-

tion, Mr. McCreery. I have not testified as to a rate of return in this proceeding, a specific recommended rate of return.

Mr. McCreery: I ask for an answer to that question, Mr. Examiner.

The Witness: Will you read it back?

(The question referred to was read by the reporter as set forth above.)

The Trial Examiner: Now, this witness, Mr. McCreery, has not endeavored to testify as to the rate of return that is to be allowed in this proceeding.

By Mr. McCreery:

Q. Were there factors of any importance in your study of rate of return as to what you defined in your study?

A. I felt obligated to become as familiar as I could with everything pertaining to these companies. Just how much of that you can express in writing is a difficult thing to state.

Q. But your rate of return study is in relation to these particular companies, is it not? You are not writing a treatise on the subject. You are writing a study on rate of return in respect to these three companies, are you not?

A. That is correct.

Q. Are there any special factors of any kind in connection with these three companies that would be material in a rate of return study of any of these companies which are not in Exhibits 225 and 225-A?

Mr. Lange: That would be a pure conclusion of the witness for him to say any factors are in these records he hasn't considered or that he might consider. He has stated what he has considered and it is set forth in his exhibits. The exhibits speak for themselves.

Mr. McCreery: I still have a right to cross examine the witness irrespective of what he says, Mr. Lange.

Mr. Lange: That is true.

Mr. McCreery: That is what I am doing.

Mr. Lange: For him to be asked to reach a conclusion as to whether he has considered all of the factors in this case or factors relative to a rate of return would be purely a conclusion.

Mr. McCreery: This record is full of conclusions, the cross examination this morning is full of conclusions, and I want to put in a few more of them.

The Trial Examiner: Will you please read the question, Mr. Reporter?

(The question referred to was read by the reporter as set forth above.)

Mr. Lange: This is the question counsel is asking, Mr. Examiner, as to whether he knows of any factor bearing on the rate of return or that are essential to a rate of return study that he has in his exhibits.

The Trial Examiner: I think that is a proper question. You may answer.

The Witness: Would you read that question once more, Mr. Reporter?

(The question referred to was reread by the reporter as set forth above.)

The Witness: Now, this rate of return study that I referred to does not purport to set forth all of the facts and factors which would have a bearing on the rate of return. The whole record, as I understand it, is to be considered in arriving at a determination.

By Mr. McCreery:

Q. Then in your rate of return study you are dealing only with the very broad generalizations contained in these two exhibits with respect to industry in general, utilities in general, interest rates in general, and that sort of thing?

A. I think that the exhibit speaks for itself.

Q. I asked for an answer to my question.

A. You use the word "general" so frequently there. It seems a good part of that information is pretty specific, relating to individual companies, natural gas companies.

Q. Have you made or incorporated in this study any

factors with respect to the operations or characteristics of these particular companies here involved in this case?

A. No, I have not.

Q. You are not actually familiar with the Colorado-Wyoming Gas Company as an operating unit, are you?

A. I can't answer that question. If you ask me specific questions I will try to answer them.

Q. That is a specific question.

A. That is a general question.

Q. All right, answer that one, then.

A. I know something about the company's operations and to whom it sells gas—

Q. Have you made—

Mr. Lange: Had you finished your answer to the first question?

The Witness: No. I have studied or read the exhibits of the accounting witnesses for Colorado-Wyoming Gas Company—

By Mr. McCreery:

Q. You mean the Federal Power Commission's accounting witnesses?

A. That is correct. And I have read what Mr. Bosworth had to say about the Colorado-Wyoming Gas Company. I can't claim to have a complete knowledge of all of the details but still I—

Q. I wasn't asking you to. I asked you how much you had investigated.

A. I have attempted to familiarize myself with the company.

Q. You haven't reflected that in any part of these exhibits, however?

A. To the extent that I show its corporate affiliations in a chart—

Q. Aside from that you haven't dealt with the operating conditions in this exhibit, have you?

A. Just what do you mean by operating conditions, Mr. McCreery?

Q. The method in which it buys gas, sells gas, and its contracts in relation to such a purchase and such sales.

A. I know how it buys the gas or where it buys its gas,

and I know at least for 1939—I think I can give you information on the companies to whom it sold gas.

Q. But that is not embodied in this report, is it?

A. It is not embodied in this report.

Q. And you didn't think it material enough to embody it in this report?

A. I wouldn't say that, Mr. McCreery. As I have tried to explain, this report is presenting certain facts and factors connected with the subject of the rate of return. It would be physically impossible for me personally to become acquainted with all of the details in this record, and certainly it couldn't be done before the hearing was held, so I have no excuse to offer of any kind for failing to include that information in here. I think it is something that the Commission will undoubtedly consider along with the data in my exhibit.

Q. Do you think the terms of the various contracts of this company, for both the purchase and sale, might be material to a study of the rate of return?

A. A study of rate of return?

Q. Yes.

A. It might be if I were attempting to defend a specific recommended rate.

Q. Nobody is asking you to defend a specific recommended rate. I say, in that kind of a study is it a material fact, whatever the answer may be?

A. I don't think it is necessary for that kind of information to be presented in such a study as I have prepared.

Q. Would the fact that the gas supply of this company came entirely from outside the company, that the Colorado-Wyoming Gas Company was not a producing company, be a material fact in a rate of return study of that company?

A. It all hinges on the definition of what a rate of return study is.

Q. Would it be a material factor in such a study in your mind?

A. Not in such a study as I have made.

Q. Would the fact that other users and purchasers of gas had priority over this particular company in the use of gas, would that have a bearing in a rate of return study of this company?

A. Again I will answer you that this is not the sort of study I have prepared.

Q. What kind of a study did you prepare, then?

A. I prepared a study which I have described as containing a background of economic and financial operation which is necessary to have in arriving at any determination of rate of return.

Q. For whom?

A. For the Federal Power Commission.

Q. As applied to what company? this company?

A. As applied to this company.

Q. Then, have you furnished all of the elements and factors of importance for consideration of the Power Commission, or have you only undertaken to furnish these general items of information that are embodied in these two numbered exhibits?

A. I only undertook to furnish, Mr. McCreery, the information that is in that exhibit.

Q. What bearing in your study does the fact that there is some inter-relation between certain of the companies have in your rate of return study as set out in a table in Part 2 of your exhibit which is entitled "Chart 4"? Of what relevancy and importance are the matters as set forth there in this particular rate of return study?

A. I think it is always important in any rate of return study to attempt to show the corporate affiliations of the company involved in the particular proceeding. It is information that would be helpful to the Commission.

Q. Having set forth the facts, then you conclude as to whether it has importance or weight in determining what the facts are?

A. Will you read that question, please?

(The question referred to was read by the reporter as set forth above.)

Mr. McCreery: Strike that question.

Q. At the outset it is important to determine whether and what are the affiliate relations, is it not?

A. I have just stated that.

Q. Second, having found out what those relations are, isn't the next thing to determine whether they actually have any bearing or importance in the particular case?

A. They always have a bearing, Mr, McCreery.

Q. What bearing do they have in this case?

A. The Colorado-Wyoming Gas Company is a wholly-owned subsidiary—

Q. I have all of the facts before me. I don't want a repetition of the facts. I want you to state what the bearing is. Does that affect the purchase price of gas to this company or its operation because there is some indirect relationship to Colorado Interstate Gas Company? What practical bearing does it have in this proceedings?

A. With such a close affiliation, Mr. McCreery, it would seem to me that if ever the time came the Public Service Company of Colorado, which is a very important customer of Colorado Interstate Gas Company, would see to it that Colorado-Wyoming Gas Company got gas.

Q. Do you happen to know all of the relations between both Public Service Company of Colorado and Colorado-Wyoming Gas Company on the one hand and Colorado Interstate Gas Company on the other hand have been at arm's length throughout their entirety?

A. No, I don't.

Q. Did you inquire as to that? Did you make any inquiry along that line?

A. Will you read that question, please?

(The question referred to was read by the reporter as set forth above.)

The Witness: Does that question ask whether on the one hand the Public Service Company of Colorado and Colorado-Wyoming Gas Company have always dealt at arm's length with the Colorado Interstate Gas Company on the other hand?

Mr. McCreery: Put it that way.

The Trial Examiner: He asked whether or not you knew.

Mr. McCreery: Yes.

Q. I asked whether you knew what the facts were in connection with their contractural and other business relations.

A. I know this, that on April 5, 1927, a memorandum of stipulations was agreed upon between Southwestern

Development Company, Cities Service Company, and Standard Oil Company (New Jersey); that as the result of those stipulations the contractural arrangement between Public Service Company of Colorado and Colorado Interstate Gas Company was entered into.

Q. Was that contract entered into at arm's length and as the result of negotiations or not, or do you know?

A. I wouldn't say so, not on the face of it.

Q. You don't know, do you?

A. I mean here, this is the record of the stipulation.

Q. Suppose I would say to you that it took between 10 and 12 weeks of solid negotiation to enter into an effect a contract between Colorado Interstate Gas Company and the Public Service Company of Colorado. Would that indicate arm's length dealing?

A. It would indicate that Cities Service was trying to get the best bargain it could, Mr. McCreery.

Q. And that also Colorado Interstate Gas Company was trying to get the best bargain it could?

A. The fact is, however—

Q. Wait a minute. Answer that question. It indicates two parties trying to do their best bargaining, doesn't it?

A. It is very difficult to answer that question. Here you have on the one hand an agreement whereby Cities Service agrees to do certain things with Southwestern Development Company and Standard Oil Company (New Jersey) on the other hand, and you have an arrangement whereby a subsidiary of Cities Service attempts to make a contract with a subsidiary of Standard Oil Company. I can't see any arm's length dealings in such a situation as that.

Q. Did you ever inquire about it?

A. Well, I have—

Q. All you have is that record before you there?

A. I have read this memorandum of stipulations and I have read portions of the Federal Trade Commission's reports.

Q. Have you made any inquiry as to whether the contractural obligations entered into between Colorado Interstate Gas Company and Colorado-Wyoming Gas Company resulted only after long negotiations or not?

A. I don't know what the negotiations were, Mr. McCreery.

Q. You wouldn't know whether or not such a contract as was entered into in 1929 between the Colorado-Wyoming Gas Company and the Colorado Interstate Gas Company required some four to six weeks in negotiations?

A. I am not familiar with that.

Q. So you wouldn't know about that?

A. I am not familiar with that negotiation at all.

Q. Would the fact that the gas supply for the City of Denver and the City of Pueblo has priority over the gas supply served by the Colorado Interstate Gas Company to the Colorado-Wyoming Gas Company have a bearing on the risk inherent in the business of Colorado-Wyoming Gas Company?

A. Will you read that question, please?

(The question referred to was read by the reporter as set forth above.)

The Witness: To the limited extent that Pueblo and Colorado Springs had priority, my answer is yes.

By Mr. McCreery:

Q. I didn't say anything about Colorado Springs. I mentioned Denver and Pueblo.

A. To the very limited extent affecting the priority to the City of Pueblo, or Pueblo Gas & Fuel Company, there would be that element of risk, but I don't believe that it entered into the situtionwhen viewed in conjunction with the City of Denver.

Q. Why?

A. Because of the relationship existing between Public Service Company of Colorado and Colorado-Wyoming Gas Company.

Q. The benefit is to the citizens of Denver, not the Public Service Company of Colorado.

Mr. Lange: Of course that speaks for itself.

By Mr McCreery:

Q. Did you examine the ordinances by which natural gas was brought to Denver and the priority set forth in that agreement with the city?

A. I haven't examined any ordinances.

Q. You didn't go into that. So if there were a definite priority in favor of the City of Denver, the citizens of the City of Denver which could either curtail or shut off in case of sufficient demand the supply of gas to Colorado-Wyoming Gas Company, that would be an element or particular risk of merit, would it not?

A. In case of insufficient demand and—

Q. Insufficient supply.

A. I am sorry, insufficient supply, and qualified to the extent that the Public Service Company of Colorado would be able to, as I understand it, curtail the service to its industrial consumers and be able to supply gas to the Colorado-Wyoming Gas Company.

Q. Did you make any study of that question of priority?

A. I have read the contracts.

Q. I say, did you make any study of it?

A. I don't know what you mean by study. I have read the contracts, the provisions about priorities.

Q. Reading the contract without a study of the whole picture of gas supply and all of those things wouldn't give you an answer, would it, as to the character of the risk involved?

A. I have looked at Mr. Rhodes' exhibit on estimated peak load obligations in which he compares those obligations with pipe line flow capacity. I have examined that and have given it some thought.

Q. But that is not reflected in your study?

A. It is not reflected in my study.

Q. Because it was unimportant or because of what?

A. Because the scope of my exhibits didn't embrace that particular information.

Q. That is just what I started out to ask you at the outset. Your study wasn't directed to the particular character of operations, doing business and terms of doing business under which this particular company was operating, was it?

A. You are now speaking as studies of my exhibits?

Q. That is right.

A. The other time we were speaking of studies as what I had studied, and I had looked into those things.

Mr. McCreery: That is what I was trying to get at and

you could have answered it at the start and we would have been a lot further along.

The Trial Examiner: We will stand in recess for five minutes.

(At this point a short recess was taken, after which proceedings were resumed as follows:)

The Trial Examiner: The hearing will be in order.

By Mr. McCreery:

Q. Mr. Knapp, as I understand your study, you set forth the more important facts and factors which should be considered in arriving at a fair and reasonable rate of return for the Colorado-Wyoming Gas Company, a small local unit operating between Littleton and Cheyenne, and the field you cover is from the California Edison to the Southern Natural Gas Company.

A. That is correct.

(Vol. 83, pp. 12395 to 12411.)

Company Exhibit No. 248 (Appendix this Record).

NET RETURN 1940-1945.

J. L. WILLARD, rate and valuation engineer, testified for Colorado-Wyoming Company on the subject of "Net Return."

(a) *"Net Return" (Company Ex. 248.)*

The witness identified Exhibit 248, prepared by him, which he explained and described as follows:

"This exhibit shows the net return in amount, and percentage of the yearly average present value of the property. Classifications are 'All Sales,' 'Total Sales for Resale,' and 'Sales for Resale at Cheyenne,' for each year from 1940 to 1945, both inclusive.

"The present values have been obtained from Revised Exhibits Nos. 111, 117 and 118, to which have been added allowances for Going Concern Value.

"Net to Reserves and Return has been obtained from Revised Exhibits Nos. 115, 117 and 118.

"Annual Depreciation Reserve has been determined by applying percentages obtained from Exhibit No. 200 to the depreciable property in similar classifications.

"Net Return in the two statements of this exhibit reflects amounts for Regulatory Commission Expense, in one instance in the year actually incurred, and in the other instance by amortizing the annual amount of this expense, beginning with the year 1939, over 5-year periods."

(Vol. 84, pp. 12,668, 12,669.)

(Abstracter's Note: The additional "Regulatory Commission Expense" projected for 1941 in Supplement to Exhibit 242 is not reflected in Exhibit 248.)

On cross-examination, in response to inquiry as to the purpose of the exhibit, the witness testified as follows:

"The purpose of this exhibit is to bring together data submitted on previous exhibits and from that data to calculate a return on the three classifications of property as shown on Sheets 1 and 2 of the calculations, the first calculation being all sales; the second being total sales for resale and the third being sales for resale at Cheyenne."

(Vol. 85, p. 12,840.)

The method of arriving at the 1940 plant values for "*All Sales*," "*Total Sales for Resale*" and "*Sales for Resale at Cheyenne*" is set out in Statement No. 3.

In line 1, "*Plant and Investment*" is as shown in revised Exhibits Nos. 111, 117 and 118 (Ex. 245), to which is added the "*Going Concern Value*" and "*Working Capital*" applicable to the three classifications.

The "*Depreciation Deducted*" is in accordance with the per cent condition of property found by Mr. Hancock in 1939 and 1940, and is reflected, without change, through the years 1940 to 1945.

The value for each of the years is averaged "by deduc-

tion of actual plant additions during each of the various years."

Statements Nos. 1 and 2 are each entitled "Net Return—Reflecting Revised Exhibits Nos. 111, 115, 117, 118, and including Going Concern Value." Statement No. 1 treats "*Regulatory Commission Expense*" as incurred, while Statement No. 2 amortizes such expense over 5-year periods, beginning in 1939.

The "*Depreciation Reserve*" on line 6 in each year (Statements Nos. 1 and 2) is the annual depreciation expense computed on a straight line basis. The per cent is that set forth in Commission Exhibit 200 "Composite Service Lives."

The relation of the net return for each year to the average annual value of plant and property for the same year produces the per cent return shown on line 8 for each year, in Statements Nos. 1 and 2.

(Vol. 85, pp. 12,840-12,852.)

Present Value Plant, Overheads, Working Capital and Going Concern Value, December 31, 1940

	All Sales	Total Sales For Resale	Sales for Resale Cheyenne, Wyoming
Plant and Investment	$1,762,450	$1,667,045	$641,968
Actual Accrued Depreciation	135,246	119,926	52,005
	$1,627,204	$1,547,119	$589,963
Working Capital	45,490	43,028	16,657
Going Concern Value	175,000	165,690	63,813
Total, 12/31/40	$1,847,694	$1,755,837	$670,433
Additions, 1941	37,477	37,118	10,988
Total, 12/31/40	$1,885,171	$1,792,955	$681,421
Net Return, 1940	$ 115,919	$ 75,305	$ 23,480

(Ex. 245, 248, St. No. 3.)

The *per cent* annual return reflected by the exhibit for each of the years is:

	All Sales	Sales for Resale	Sales for Resale, Cheyenne
1940	6.34	4.33	3.52
1941	5.46	3.51	2.78
1942	6.29	4.40	3.46
1943	6.17	4.42	3.46
1944	5.84	3.97	2.90
1945	4.85	2.98	1.97

(Ex. 248, Statement No. 1, Appendix.)

1940	7.63	5.69	4.55
1941	6.14	4.22	3.31
1942	5.50	3.56	2.83
1943	5.38	3.58	2.83
1944	5.20	3.30	2.39
1945	4.56	2.67	1.74

(Ex. 248, Statement No. 2, Appendix.)

By Mr. Lange:

Q. Now, turning to your Exhibit 248, Mr. Willard, what is the purpose of this exhibit?

A. The purpose of this exhibit is to bring together data submitted on previous exhibits and from that data to calculate a return on the three classifications of property as shown on sheets 1 and 2 of the calculations, the first calculation being all sales, the second being total sales for resale and the third being sales for resale at Cheyenne.

Q. Now, I note on the first schedule, the main one of the exhibit, you have a return computation that for the year 1940 *employes* the figure of plant value of $1,808,448.00, is that right?

A. Yes, sir. That is at the beginning of the year 1940.

Q. The breakdown of that at the end of the exhibit, which breakdown is labeled "Apportionment of Going Concern Value"—

A. This breakdown includes an apportionment of going concern value.

Q. And statement of present value, I see.

A. Yes, sir, and it shows the method of arriving at

values at the beginning and at the end of different years by deduction of actual plant additions during the various years.

Q. I notice that on that statement in the exhibit, Exhibit 248, the item of going concern value is brought into the accounting picture, or rather into your exhibits for the first time.

A. That is correct.

Q. Now, then, this first table or schedule in your exhibit in employing that figure of $1,808,448.00 in the column under 1940, then, also brings that down to the end of the year. How do you arrive at that? You submit a figure of $1,847,694.00.

A. That second figure you mention is indicated as the present value at the end of the year and the calculation to arrive at that figure is shown under the column entitled "All Sales" on the third sheet of the exhibit.

Q. I see. That is where that comes from.

Now your Net to Reserves and Return, the figure of $154,739.00, I understand that is taken from your Exhibit 245.

A. Yes, revised Exhibit 115, which is a part of Exhibit 245.

Q. That is, revised Exhibit 115 embraced in Exhibit 245?

A. That is correct.

Mr. McCreery: It isn't the same figure, however.

Mr. Lange: But the figure of $154,739.00 is the same as appearing in revised Exhibit 115 for 1940. I was just wanting to tie these in.

The Witness: That's correct.

By Mr. Lange:

Q. Now, the next item that you have under all sales is described by you as Depreciation Reserve. Don't you mean depreciation expense? That is what it really is.

A. I mean it is the annual allowance for depreciation as would be allowed in a case of this nature.

Q. What do you mean by a case of this nature, Mr. Willard, as distinguished from any other use of the term?

A. Well, in order to arrive at an amount applicable to

net return the annual allowance for reserves must be deducted from your return as an expense and that is the amount that has been calculated in this exhibit.

Q. Well, just getting it in its simplest language, it is an expense item.

A. That is correct.

Q. And where was that taken from, the $38,820.00?

A. That is a calculation that we have made and I have the working papers for and it was arrived at by applying the percentages that were obtained from Commission's Exhibit 202 to the depreciable property in our own Exhibits in the similar classifications.

Q. Don't you mean Commission's Exhibit 201, Mr. Willard?

Mr. McCreery: No. 200 was Mr. Copp's Exhibit on service lives.

Mr. Lange: 201 is Mr. Smith's Exhibit.

Mr. McCreery: 200 was Mr. Copp's exhibit.

Mr. Lange: But Mr. Willard stated that he utilized Exhibit No. 202 and I was wondering whether he was in error.

The Witness: That 202 is an error. Whether it is a typographical error or my error I don't know. Those percentages are found in Exhibit 200.

Mr. Lange: Mr. Copp's Exhibit on service lives.

The Witness: That is correct.

By Mr. Lange:

Q. Do you have that exhibit there before you, Mr. Willard?

A. Yes, sir.

Q. Does that appear on the last page?

A. Yes, that appears on the last page of his exhibit by different classifications of property.

Q. The percentages that you used under the column "Annual Straight Line Rate, blank Percentage" is that where you utilize your figures?

A. Yes.

Q. The last column?

A. The last column, the percentages shown in the last column.

Q. That I have just read.

A. Yes.

Q. In other words, that is the column headed "Annual Straight Line Rates, Percent," and then it has these percentages set forth in that column.

A. That is correct.

Q. Exhibit 200.

A. Yes, sir.

Q. And you have made the computations from that in order to arrive at the depreciation reserve figure as you term it for each of the years 1940 through 1945 in this tabulation in Exhibit 248.

A. Yes, sir. That line entitled "Depreciation Reserve" I think probably could be more correctly termed annual reserve accrual.

Q. Well, it could in the same fashion be entitled annual depreciation expense, too, couldn't it? It is an expense item. There is no question about that.

A. That is correct.

Q. And in utilizing the rates as set forth in the Commission's Exhibit No. 200, you then for each of the years 1940 through 1945 computed that annual charge on a straight line basis.

A. I have computed it according to the percentages, yes.

Q. And then you compute what you term the net return for each of the years and also what you compute as a percentage for each of the years.

A. Yes, sir, that percentage is obtained by relating net return to the average investment for the several years.

Q. Now, under the column of 1941, as you state, average investment at the end of the year is $1,885,171.00, isn't it?

A. Yes, sir.

Q. I see that you then take that figure as the investment for each of the following years through 1945. There is no change made in that, both at the beginning as well as at the end of each of those years.

A. For the purposes of this case we have calculated the expenditures contemplated through the year of 1941; that is, the major expenditures and—

Mr. McCreery: You mean capital expenditure.

The Witness: Yes, sir, and in all exhibits that project

beyond 1941 the same figure for investment as at the end of 1941 has been used for the succeeding years.

Q. And you are not making provision there for depreciating that investment over that period of years?

A. Well, no, that to begin with is the depreciated investment as reflected in Exhibit 111, or revised Exhibit 111 and hasn't been further depreciated.

Q. When you speak of the depreciated investment, plant investment, as set forth in Exhibit 111, you mean of course calculations appearing in statement 2 of the exhibit and depreciation there as the term is used by you is the application of Mr. Hancock's percent condition to the various units of property.

A. That is correct, and I have no basis on which to calculate a different percent condition for the ensuing years.

Q. And those figures of Mr. Hancock that are utilized in statement 2 of Exhibit 111, there the percent condition of the various units of property are calculated. That percent condition was arrived at by him—when was it, the middle of the year 1939, wasn't it?

A. Partially. He made observations in September or October of 1939 on the main and branch lines. He made observations in the late fall of 1940 on the remainder of the property.

Q. So the percent condition as applied to plant and investment and as set forth in the revised statement No. 2, Exhibit 111, and embraced in Exhibit 245, is the same as that found by Mr. Hancock and which is carried forward in your Exhibit 248.

A. That is correct.

Q. For each of the years as set forth in that schedule 1 of Exhibit 248.

A. Yes, sir.

Q. Well, then, during this entire period from the middle of 1939 and at least from that part of the year in 1940 when Mr. Hancock made his last inspection, down through 1945, so far as this schedule on Exhibit 248 is concerned, there is no depreciation accruing in those properties.

A. No, I wouldn't say that. Those are figures tabulated for the purposes of showing annually the net based on what data was available. It was impossible to determine any observed depreciation for the years of 1942, 1943, 1944 and

1945, mainly because they aren't here yet and even if they were and observations had not been made, we could not have determined an amount of depreciation.

Q. You say for the years 1942 to 1945, but that same difficulty is also applicable to the year 1941 as well as all of those inspections that were made during the year 1939 and not in 1940.

A. The observations of Mr. Hancock in the fall of 1939 and the fall of 1940 are reflected through the several years through here.

Q. Without change?

A. Without change.

Q. Now, on the other hand, in your calculations as set up on this schedule 1 of Exhibit 248, you do deduct annually *deduct* this amount that you have set up indicated as depreciation reserve or expense or annual depreciation accrual each year?

A. That is correct. That is based on a percent of the undepreciated figures in the various accounts.

Q. Well, exactly how do you arrive at the calculation? You take these figures setting up the percentages in the Exhibit 200, and then apply them to the several accounts?

A. That's right.

Q. You recall the method of treatment of depreciation in Exhibit 201, don't you—Commission's Exhibit 201, presented by Mr. Smith in this proceeding, entitled "Annual and Accrued Depreciation"?

A. Yes, I believe I recall that.

Q. Did you proceed in the same fashion in arriving at your figures under the columns for each of the years in the Exhibit 248 that you have indicated as depreciation reserve?

A. I believe so.

Q. But you took the percentages from Mr. Copp's Exhibit 200 and applied them in the same fashion, or rather utilizing the same mechanics as Mr. Smith did in his exhibit, Exhibit 201?

A. That is correct, for the derivation of the figure but not for the ultimate use of the figure as Mr. Smith used it.

Mr. McCreery: For the purpose of annual accruals only.

The Witness: For the purpose of annual accruals only.

By Mr. Lange:

Q. Not for any other purpose?

A. No, sir. I don't believe there is any purpose that they can actually be used for—

Mr. McCreery: That is reflected in the statement, Mr. Lange.

By Mr. Lange:

Q. But you do say they serve the purpose very well for these annual accruals as you set them up here?

A. I believe it is an accepted method for annual accruals.

Q. Why do you propose to accept—why do you limit them to that particular use only?

A. For the reason that I am only trying to find out an amount of money that should be deducted as an expense to find that return.

Q. Any way—in other words, you are just attempting to arrive at this net return figure in this exhibit, and did not give very much consideration to the method or the bases on which you arrived at that net return?

Mr. McCreery: May I ask a question there?

Mr. Lange: Yes.

Mr. McCreery: You didn't understand that these annual accruals had anything whatever to do with the actual physical condition of the property?

The Witness: They have nothing whatsoever to do with the actual physical condition of the property.

By Mr. Lange:

Q. But you have utilized these figures and have employed the same mechanics as Commission examiners in order to arrive at what you term net return as well as net return percentage in your Exhibit 248, didn't you, Mr. Willard?

A. Yes, sir, I deucted those as an expense from which the percent of return was calculated.

Q. And you of course don't know anything about the physical condition of the various units of property of the company during the years 1941 through 1945, do you?

A. Actually, no. These columns are put here for the purpose of observation of the Commission for what use they may be.

Q. The bases are all right if used for one purpose but you don't sponsor them for any other purpose.

A. They are proper for the purpose of deducting as an expense to arrive at net return. I will concede that I do not guarantee that the depreciated value of the property in 1942 and on up to 1945 will be the figures as reflected here for the simple reason that observations would have to be made during those periods and the amount of observed depreciation calculated at that time.

Q. Well, for 1941 you overlooked 1941. You haven't seen the property then, have you?

A. During a small part of 1941, yes.

Q. But even if you had looked at it during 1941 or the latter part of 1940 and made your own observations that wouldn't have governed any of these figures anyway because you employed Mr. Hancock's—so in so far as 1941 is concerned, you don't know whether they are actual or not.

A. That is correct.

Q. You didn't relate anything that you may have seen during 1941 to this column?

A. No, sir.

Q. Nor 1940 that you may have seen in 1940 after Mr. Hancock had made his inspection?

A. Part of the depreciation shown in Exhibit 111 was from my observations in the fall of 1940.

Q. There is no figure that was subsequent to what Mr. Hancock put in, was there?

A. No, sir.

Q. You didn't make any inspection, did you, of the pipe?

A. No, sir.

Mr. McCreery: It seems to me that this is going far afield. The record shows who did it and when it was done.

Mr. Lange: No, he was limiting what he termed quantities for the years 1942 through 1945, and that situation obtains for 1941 and also part of 1940, and I just want to show that definitely.

The Trial Examiner: You have completed that phase Mr. Lange?

Mr. Lange: Yes.

The Witness: You are correct in that statement, Mr. Lange.

Mr. Lange: Now, do you want to make this correction? Shall we make the correction in the written statement or does the record reflect that with reference to Exhibit 202, that is in the written statement?

The Witness: I think it should be corrected.

Mr. McCreery: May the record be corrected accordingly, Mr. Examiner?

The Trial Examiner: Yes.

(Vol. 85, pp. 12839-12852.)

* * * * *

(b) "*Rate of Return*" (Commission Ex. 202, Statement B-7.)

Commission witness SMITH, as a part of his exhibit on "Income Accounts" (Ex. 202, p. 10), computes as "Rate of Return" for the years 1926 to 1939, inclusive. As set forth for the year 1939 it is, as follows:

Line No.	Particulars	1939
1	Average balance of gas plant in service, as adjusted	$1,664,538.28
2	Less, average balance in reserve for depreciation of gas plant in service, as adjusted	374,904.19
3	Net average investment in gas plant in service as adjusted	$1,289,634.09
4	Working capital requirements (Note 1)	16,234.59
5	Subtotal	$1,305,868.68
6	Less, average balance in contributions in aid of construction, as adjusted	12,092.94
7	Total average investment	$1,293,775.74
8	Utility income (Statement B-6, line 11)	$ 167,902.75
9	Rate of Return	12.98%

(Ex. 202, p. 10, Col. 1 and 3.)

The reason stated by the witness for the inclusion of "Rate of Return" from the beginning of the Company operations in 1926, was:

> "A. Primarily, of course, for information purposes, and to go on with that, the reason I thought that information might be of use was because we had found it necessary to restate the depreciation; we therefore had applied several adjustments to the company's per book figures, the most significant of which is, of course, depreciation with reference to those earlier years and then it seemed to me that Statement B-7 which tabulates the return which the company had earned as therein computed, might be of value from an information standpoint in these proceedings."
>
> (Vol. 67, p. 9739.)

The inclusion of prior years was made pursuant to direction of the Commission. (Vol. 67, p. 9742.)

None of the entries (lines 1 to 9, inclusive,) reflect the books of the Company. (Vol. 67, pp. 9728-9736.)

Line 1, "Average balance of gas plant in service, as adjusted," reflects as deductions from Plant Account all the adjusting and eliminating entries made in Commission Exhibits 199 and 201. (Vol. 67, pp. 9730, 9685-9698.)

Witness testified:

> "For each of these years the sum of one-half of the total of gas plant in service at the beginning and at the end of the year, as adjusted, is considered as the average balance of gas plant in service during the year."
>
> (Vol. 67, p. 9735.)

Line 2, "Less average balance in reserve for depreciation of gas plant in service, as adjusted" is computed from "Annual and Accrued Depreciation of Gas Plant as adjusted," by the witness (Ex. 201), which in turn is an accountant's application of "Composite Service Lives" (Ex. 200) on a straight line basis. (Vol. 67, pp. 9730, 9686-9698.)

Line 3, "Net average investment in gas plant in service,

as adjusted" is the result of the substraction of line 2 from line 1.

Line 4, "Working capital requirements" is the amount thereof as set forth in Commission Exhibit 203.

Line 5, is the sub-total, resulting from the foregoing lines 1 to 4.

Line 6, "Less average balance in contributions in aid of construction, as adjusted" is the total "Contributions in Aid of Construction—as adjusted," averaged in the same manner as in line 1. The "Contribution" payments were made by Colorado Interstate Gas Company, Kuner-Empson Company, Public Service Company, Lutheran Sanitarium and International Metal Foundation. (Ex. 204, Schedule A-15, p. 8.)

The witness was asked, on cross-examination, to explain his reasons for eliminating the item, "Contributions in Aid of Construction." On this point, the testimony is as follows:

"Q. Well, you had to reach some conclusions when you struck it out. Now, I asked you why you struck it out. Is that the reason, or have you another reason?

"A. Because it was not an investment by the company. I am dealing with investment here from the company's point of view.

"Q. I thought you were dealing in this exhibit with a property account.

"A. Well, that is investment, isn't it?

"Q. Apparently the property account and the investment that you arrive at are different in this one respect at least.

"A. Well, I measured the investment here by the assets of the company and I am diminishing those assets by the amount included in there in which the company did not contribute."

(Vol. 67, p. 9807.)

All the items of contribution, which total $12,092.94 for 1939, represent assets now used or useful in the operations of the Company. (Vol. 67, p. 9805, Ex. 287.)

On *Line 7*, is shown "Total Average Investment" finally arrived at by subtracting line 6 from line 5.

The witness SMITH made correction of "Total Average Investment" for the year 1939 by addition to the total figure of $1,293,775.74 (L. 7, Col. 3, Statement B-7) the amount of $2,982.14, making the total as re-computed by him, $1,296,657.88; and for the year 1938 by the addition of $1,491.07, making his total re-computation $1,337,354.90 (Vol. 67, pp. 9803, 9804).

Line 8, "Utility income," as computed by the witness, is shown for the year 1939 as $167,902.75.

This figure does not reflect the books of the Company. The witness testified "The Income Account was adjusted to make it more nearly reflect the legitimate operating income of the Company from gas operations." (Vol. 67, p. 9729.)

In his adjustments for the year 1939, he eliminates from "Operating Revenue Deductions" as per books, and adds to Operating Income of the Company $16,860.52 (L. 3, Col. 4, Statement B-1, Ex. 202). The items making this total are detailed in Statement B-10, Ex. 202 (elsewhere herein abstracted) and include "Rate Case Expenses" $14,079.16, which the witness treats "Just as though it had not been spent." (Vol. 67, p. 9744.)

(Vol. 67, pp. 9743, 9790.)

In his adjustments of "Depreciation" he reverses the Company's entry and substitutes therefor a 2% annual accrual based on Commission Exhibits 200 and 201—resulting in a debit of $9,965.67. (L. 5, Col. 3 and 4, Statement B-1.)

Taxes are also adjusted by him to reflect a net debit of $616.76. (L. 6, 7, 8, Col. 3 and 4, Statement B-1.)

The "Utility income" is computed by the witness at $167,902.75 for the year 1939. As shown on the Company books, the same items show $161,624.66 for that year. (L. 10, Col. 2 and 5, Statement B-1.) The figure $167,902.75 is adopted in his "Rate of Return" computation. (L. 8, Col. 3, Statement B-7.)

Ex. 202 and the testimony supporting it is set forth supra.

[Exhibits appear in Volume III of this Record.]

And thereafter the following proceedings were had in said cause in the United States Circuit Court of Appeals for the Tenth Circuit:

Order of Submission.

Sixth Day, September Term, Tuesday, September 14th, A. D. 1943. Before Honorable Sam G. Bratton, Honorable Walter A. Huxman and Honorable Alfred P. Murrah, Circuit Judges.

These causes came on to be heard, Elmer L. Brock, Esquire, and E. R. Campbell, Esquire, appearing for Colorado Interstate Gas Company; John P. Akolt, Esquire, and Charles H. Keffer, Esquire, appearing for Canadian River Gas Company; Donald C. McCreery, Esquire, appearing for Colorado-Wyoming Gas Company; Edward H. Lange, Esquire, appearing for Federal Power Commission; Thomas H. Gibson, Esquire, appearing for City and County of Denver.

Thereupon argument was commenced by counsel and continued to the hour of adjournment.

Order of Submission.

Seventh Day, September Term, Wednesday, September 15th, A. D. 1943. Before Honorable Sam G. Bratton, Honorable Walter A. Huxman and Honorable Alfred P. Murrah, Circuit Judges.

These causes came on further to be heard, Elmer L. Brock, Esquire, and E. R. Campbell, Esquire, appearing for Colorado Interstate Gas Company; John P. Akolt, Esquire, and Charles H. Keffer, Esquire, appearing for Canadian River Gas Company; Donald C. McCreery, Esquire, appearing for Colorado-Wyoming Gas Company; Edward H. Lange, Esquire, appearing for Federal Power Commission; Thomas H. Gibson, Esquire, appearing for City and County of Denver.

Thereupon argument by counsel was concluded and the causes were submitted to the court.

Opinion.

[May 16, 1944.]

Elmer L. Brock and E. R. Campbell (Wm. A. Dougherty and C. W. Cooper were with them on the brief) for Petitioner, Colorado Interstate Gas Company.

John P. Akolt and Charles H. Keffer (P. C. Spencer was with them on the brief) for Petitioner, Canadian River Gas Company.

Donald C. McCreery (Lee, Shaw and McCreery, and Wm. A. Bryans, III, were with him on the brief) for Petitioner, Colorado-Wyoming Gas Company.

Edward H. Lange (Charles V. Shannon, L. W. McKernan, and Milford Springer were with him on the brief) for Respondent, Federal Power Commission.

Thomas H. Gibson (Malcolm Lindsey was with him on the brief) for Respondent, City and County of Denver, Colorado.

Before BRATTON, HUXMAN and MURRAH, Circuit Judges.

BRATTON, Circuit Judge:

These cases bring here for review orders of the Federal Power Commission requiring Canadian River Gas Company, Colorado Interstate Gas Company, and Colorado-Wyoming Gas Company to make reductions in their respective rates for natural gas transported in interstate commerce and sold for resale for ultimate public consumption. Reference will be made to the companies as Canadian, Colorado, and Wyoming, respectively.

The City and County of Denver filed with the Commission a complaint charging that the rates of Canadian, Colorado, and Public Service Company were unjust and unreasonable; similarly, the Public Service Commission of the State of Wyoming filed with the Commission a complaint charging that the rates of Wyoming were unjust and unreasonable; and the Commission instituted on its own motion an investigation into the reasonableness of the rates of Canadian, Colorado, and Wyoming. Canadian and Colorado filed with the Commission their joint application for

a stay of the order directing that the investigation be instituted; the Commission denied the application; the companies sought review; and it was denied on the ground that the order was merely preliminary and procedural and therefore not open to review. Canadian River Gas Co. v. Federal Power Commission, 110 F. (2d) 350, 113 F. (2d) 1010, certiorari denied, 311 U. S. 693. By order of the Commission, the three proceedings were consolidated for purposes of hearing. At the conclusion of extended hearings; the Commission found that the revenues and costs of the companies for 1939 were fairly representative of the relationship which would exist between such items in the immediate future, and that use of the figures for that year resolved most of the doubts as to future operation conditions in favor of the companies. Using the figures for 1939, the Commission determined that the rates and charges of Canadian for gas sold to Colorado and Clayton Gas Company were unjust and unreasonable to the extent of $561,000 annually; that the rates and charges of Colorado were unjust and unreasonable in the amount of $2,065,000 annually; and that those of Wyoming were unjust and unreasonable in the sum of $119,000. The Commission ordered the companies to reduce their rates and charges by not less than such amounts, respectively, and directed that schedules of rates be filed effecting such reductions. The companies applied for a rehearing; the Commission denied the applications; and the companies severally sought review.

Southwestern Development Company, through its wholly owned subsidiary, Amarillo Oil Company, owned gas leaseholds in more than 315,000 acres of land in the Texas Panhandle Field; Cities Service Company, through its wholly owned subsidiary, Public Service Company, at Denver, Colorado, and its wholly owned subsidiary, Pueblo Gas and Fuel Company, at Pueblo, Colorado, controlled the resale market for gas in the two cities, but did not have an adequate supply of natural gas or pipeline facilities for the transportation of natural gas to such cities. After extended negotiations, Southwestern, Cities Service, and Standard Oil Company of New Jersey, entered into an agreement denominated "Memorandum of Stipulations", and dated April 5, 1927. The primary objectives of the contracting parties, as expressed in the agreement, were

the acquisition of natural gas properties in the gas field, the construction of a pipeline from the field to the City of Denver via Pueblo and Colorado Springs, the sale and delivery of natural gas at the city gate of Denver and other cities for distribution in such cities, and the supplying of natural gas to Colorado Fuel and Iron Corporation at Pueblo. Under the terms of the contract, Southwestern was to cause to be transferred to a new wholly owned subsidiary the leaseholds and gas producing properties, and to develop such properties into a source of supply of natural gas; Standard was to cause a corporation to be formed which would construct and maintain a natural gas pipeline and appurtenant facilities for the transmission and sale of gas; and Cities Service, through its subsidiaries, was to obtain franchises and rate ordinances in Denver and Pueblo, respectively, for the sale of natural gas, and convert the artificial gas distribution plants then in use in such cities into natural gas distribution plants. The newly formed subsidiary of Southwestern was to sell at cost gas to the pipeline company; and, with provisions for revision which need not be detailed, the pipeline company was to sell and make delivery at the city gate at the rate of forty cents per thousand cubic feet. The producing company and the pipeline company, and the pipeline company and the distributing companies, were to enter into contracts carrying out the commitments made in the Memorandum of Stipulations; and such contracts were to be for a term of twenty years from and after the execution of the first thereof, and as long thereafter as natural gas might be profitably sold by the pipeline company. The contract further provided that in case an acceptable rate ordinance was not secured in the City of Denver, on or before July 1, 1927, the parties thereto, or any of them, might terminate participation therein, and each thereupon be free to act as though such stipulations and any agreements thereunder had never been made.

Franchises and rate ordinances were obtained in Denver and Pueblo; Canadian was incorporated as the subsidiary of Southwestern; and Standard caused Colorado to come into existence. Canadian and Colorado, Colorado and Public Service Company, and Colorado and Pueblo Gas and Fuel Company, respectively, entered into contracts as pro-

vided in the Memorandum of Stipulations; and by contractual arrangements, Colorado obligated itself to sell natural gas to the City of Colorado Springs for distribution by the city in its municipally owned distribution system and for sale to industrial and commercial consumers. Southwestern caused Amarillo Oil Company to convey the leases to Canadian. Canadian paid Amarillo Oil Company the sum of $5,000,000 for the leases and the then producing wells. Southwestern and Standard had agreed upon that amount, and it was paid with funds furnished by Standard. Canadian was financed through the issuance of bonds in the amount of $11,000,000, all of which were purchased by Colorado with funds furnished by Standard. Colorado issued 1,250,000 shares of common stock without par value, of which forty-two and one-half per cent was issued to Southwestern, forty-two and one-half per cent to Standard, and fifteen per cent to Cities Service; and it issued preferred stock valued at $2,000,000, one-half to Standard and one-half to Southwestern. Standard paid Colorado $1,000,000 in cash for the common stock issued to it and a like sum for its preferred stock. No cash consideration was paid for the stock issued to Southwestern or Cities Service. Colorado issued bonds in the amount of $19,200,000. These were sold to Standard for cash at par, and the proceeds, along with the cash which Standard paid for the stock issued by Colorado, aggregating $21,200,000, was used to finance the project. Canadian developed the leaseholds, and constructed a main transmission pipeline from the field to Clayton Junction in New Mexico, a distance of approximately 86 miles; and Colorado constructed a main transmission line from Clayton Junction to the city gate at Denver, a distance approximating 254 miles, three compressors, and various laterals extending from the main line to customers of the company, including a lateral to the plant of Colorado Fuel and Iron Corporation. On December 31, 1939, Canadian had in operation a total of 94 gas wells; and its gathering system consists of about 144 miles of pipe, and has two terminals. One terminal is located at the Bivins Station where the gas there gathered is compressed and then transmitted through the transmission line to Clayton Junction where virtually all of it is sold to Colorado but a small amount is sold to Clayton Gas Company.

The other terminal is located at Fritch Station where the gas there gathered is compressed and then transported through the facilities of Texoma Natural Gas Company to Gray Junction, in Oklahoma, where it is sold to Colorado. Colorado sells that gas to Natural Gas Pipeline Company, and it moves to its destination, known as the Chicago market.

The facilities of Wyoming consist of a main transmission pipe line extending from a point near Littleton, Colorado, to the city gate at Cheyenne, Wyoming, compressor stations, and a number of laterals extending from the main line to city gates and industrial plants in Colorado and Wyoming. From the inception of the project until the latter part of 1929, the company obtained its entire supply of natural gas from the Wellington Field in Colorado. But early in 1929, the supply from that field began diminishing rapidly; it became essential that the company secure another source in order to continue in business; in October of that year, it entered into a contract with Colorado for the purchase of gas from that company with which to supply its customers in the States of Colorado and Wyoming; and ever since Colorado has sold gas to Wyoming, deliveries being made at the point adjacent to Littleton.

In 1939, Canadian sold for resale approximately 46,000,000 Mcf of gas, of which about 41,000,000 Mcf were sold to Colorado; Colorado sold about 20,000,000 Mcf of such gas to Natural Gas Pipeline Company, about 7,000,000 Mcf to Colorado Fuel and Iron Corporation, and about 6,000,000 Mcf to Public Service Company; and Wyoming transported and sold 2,860,000 Mcf, some to affiliates for resale through distribution systems in towns and communities in Colorado and Wyoming, some to other companies for like distribution, some to industrial consumers, and some to United States Army posts.

The Motions to Dismiss—The City and County of Denver filed separate motions to dismiss the petitions for review of Canadian and Colorado, and Public Service Commission of Wyoming filed a like motion to dismiss the petition for review of Wyoming. We denied the motions, but thereafter the City and County filed a brief, and later its counsel participated in the oral argument, renewing the con-

tention that the petitions should be dismissed for want of jurisdiction. The grounds of each motion are that it appears from the face of the petition for review that the petitioning company is a private corporation organized and existing under the laws of Delaware; that the petition fails to allege that the company is located in this circuit; and that it affirmatively appears from the face of the petition, the face of the record, the testimony of the company's own witnesses, and facts dehors the record that the company is not located and does not have its principal place of business in this circuit. These companies were incorporated under the laws of Delaware, and therefore their legal residence and domicile is in that state. Shaw v. Quincy Mining Co., 145 U. S. 444; Southern Pacific Co. v. Denton, 146 U. S. 202; Home Powder Co. v. Geis, 204 F. 568; Continental Coal Corp. v. Roszelle Bros., 242 F. 243; Dryden v. Ranger Refining & Pipe Line Co., 280 F. 257, certiorari denied, 260 U. S. 726; In re Hudson River Navigation Corp., 59 F. (2d) 971.

But section 19(b) of the National Gas Act, 52 Stat. 821; 15 U.S.C.A. § 717r(b), provides that any party to a proceeding under the act who is aggrieved by an order of the Commission made in the proceeding may obtain a review of the order in the Circuit Court of Appeals of any circuit in which the natural gas company to which the order relates is located or has its principal place of business, or in the Court of Appeals of the District of Columbia, by filing in such court within the time specified a petition in writing praying that the order be modified or set aside in whole or in part. It is to be noted that the statute provides in clear language that review may be had either in the circuit where the company is located or in the circuit where its principal place of business is located, the pivotal language being stated in the disjunctive. It is commonplace for a corporation chartered in one state to conduct much or all of its business in another state far distant from that of incorporation. No doubt mature considerations of convenience gave rise to the deliberate care with which Congress, in the exercise of its discretion, authorized review in the circuit within which the principal business of the company is conducted. And the principal place of business is where

the actual business of the corporation is conducted or transacted. It is a question of fact to be determined in each particular case by taking into consideration such factors as the character of the corporation, its purposes, the kind of business in which it is engaged, and the situs of its operations. Cf. In re Guanacevi Tunnel Co., 201 F. 316; In re Hudson River Navigation Corp., supra; Chicago Bank of Commerce v. Carter, 61 F. (2d) 986.

Section 5, chapter 65, Revised Code of Delaware, provides that the certificate of incorporation shall set forth the name of the county, and the city, town, or place within the county, in which the principal office or place of business of the corporation is located in that state; and section 32 provides that every corporation shall maintain a principal office or place of business in the state. Here, in each instance, the certificate of incorporation states the location of the principal office of the company in Delaware, but it is completely silent in respect of the place of business. All of the physical properties and business operations of Colorado and Wyoming are located and conducted within this circuit. Wyoming maintains offices in Denver where its executive officers and agents supervise and administer its properties and operations. Canadian transports almost ninety per cent of the natural gas which it produces into this circuit, part into New Mexico and part into Oklahoma, where virtually all of it is sold to Colorado. The properties of Canadian and Colorado are operated as a unit. The two companies have a single general manager and jointly maintain an office in Colorado Springs, under the charge of such manager, where the supervision, direction, and management of the affairs of both companies are conducted. There are approximately thirty-six employees in the office, some devote their entire time to the business of Colorado and are paid by that company, some divide their time between the business of the two companies, and their salaries are paid partly by each company. The general manager is in charge of all operations of Canadian, including the gas fields and a field operating office in Texas; the chief dispatcher, who keeps in constant touch with the expected demands for gas and gives orders for the amount of gas to be piped, has his office in Colorado

Springs and is under the supervision of the general manager. The principal books of account are kept in Colorado Springs, under the direction of the assistant treasurer of the company who maintains his office there. All major purchases for both companies are made and all bills for materials purchased are paid by vouchers issued out of the office there; all dealings between the two companies in connection with the purchase and sale of gas are conducted in and through the office there; and the principal bank account of Canadian is kept in banks in that city. We think it is clear that the principal place of business of each company is in this circuit, within the meaning of the statute. Continental Coal Corp. v. Roszelle Bros., supra; Dryden v. Ranger Refining & Pipe-Line Co., supra; In re Lone Star Shipbuilding Co., 6 F. (2d) 192. And we therefore adhere to the view that the motions to dismiss are illfounded.

Jurisdiction of Production and Gathering Properties—Canadian attacks the order relating to the reduction in its rates and charges on the ground that the Commission erroneously undertook to exercise unauthorized rate-regulatory jurisdiction over the production and gathering properties, facilities and business of the company. Section 1(a) of the Act, supra, declares "that the business of transporting and selling natural gas for ultimate distribution to the public is affected with a public interest, and that Federal regulation . . . relating to the transportation of natural gas and the sale thereof in interstate . . . commerce is necessary in the public interest". Section 1(b) limits the act in its application "to the transportation of natural gas in interstate commerce, to the sale in interstate commerce of natural gas for resale for ultimate public consumption for domestic, commercial, industrial, or any other use, and to natural-gas companies engaged in such transportation or sale", and further provides in express terms that it "shall not apply . . . to the production or gathering of natural gas." Section 2(6) provides that a natural gas company is a company engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale. Section 4(a) declares that rates and charges in connection with the transportation of natural gas subject to the jurisdiction of the Com-

mission "shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful". Section 5(a) directs the Commission to "determine the just and reasonable rate . . . and shall fix the same by order". Section 6(a) empowers the Commission to "investigate and ascertain the actual legitimate cost of the property of every natural-gas company, the depreciation therein, and, when found necessary for rate-making purposes, other facts which bear on the determination of such cost or depreciation and the fair value of such property". Section 7 vests in the Commission certain powers relating to the improvement, establishment of physical connections, abandonment, construction, or extension of transportation facilities of natural gas companies. Section 8 enables the Commission to require natural gas companies to keep and maintain accounts and records. Section 9 charts the authority of the Commission in relation to rates of depreciation and amortization of the several classes of property of natural gas companies. Section 10 concerns the filing with the Commission of periodic and special reports. Section 11 is addressed to the duties of the Commission respecting state compacts dealing with the conservation, production, transportation, or distribution of natural gas. And section 14(a) authorizes the Commission to "investigate any facts, conditions, practices or matters which it may find necessary or proper to determine whether any person has violated or is about to violate any provision of this Act." The primary legislative purpose in the passage of the Act was to provide comprehensive regulation of the wholesale distribution to public service companies of natural gas moving interstate, and to vest in the Commission as the instrumentality of Congress power to exercise such regulation. Illinois Natural Gas Co. v. Central Illinois Public Service Co., 314 U. S. 498; Public Utilities Commission v. United Fuel Gas Co., 317 U. S. 456. And the grant of powers expressly conferred upon the Commission carried with it by implication all authority reasonably necessary and fairly appropriate to make such powers fully efficacious, and to render effectual the discharge of the duties of the Commission. But, under section 1(b) the Commission does not have express or implied rate-regulatory jurisdiction of the production and gathering of gas.

Canadian is engaged in the business of producing, gathering, transporting and selling interstate natural gas for resale for ultimate public consumption. It therefore is a natural gas company, subject to the jurisdiction of the Commission in respect to its rates and charges for the gas transported and sold in such commerce. Its production and gathering properties and facilities are parts of its integrated operations. Still, under section 1 of the Act they lie beyond the range of the rate-regulatory jurisdiction of the Commission. But the Commission did not prescribe charges for the production; did not fix rates for the gathering of gas; and did not exercise other rate-regulatory jurisdiction over production or gathering as such, within the meaning of the limiting and forbidding provisions of the Act. The Commission did not attempt to affect in any manner the acquiring and maintaining of gas leaseholds, gas rights, or gas wells. Neither did it undertake to affect anywise the location, construction, extension, or physical connections of pipelines, or the operation of pipelines or other facilities constituting the gathering properties. The rate-regulatory jurisdiction of the Commission was exerted only in respect of rates and charges for natural gas transported in interstate commerce and sold in such commerce for resale for ultimate public consumption. The Commission inquired into and considered the production and gathering properties in respect to cost, depreciation, operating expenses, and revenues. But the inquiry was merely in their relation to the fixing of reasonable rates to be exacted and received for the natural gas moved in interstate commerce and sold for resale. And the order of the Commission in each instance operated only upon such rates and charges. We fail to find in the act anything which expressly or by fair implication indicates a Congressional purpose to restrict or withhold from the Commission jurisdiction in a case of this kind to take into consideration the production and gathering properties only as they have bearing upon the question of the fixing of reasonable rates for gas moved interstate and sold for public consumption.

Abrogation of Prices Fixed by Contract Prior to Effective Date of the Act—While not challenging the constitutional validity of the Act on its face, or as it may be applied in general, Canadian and Colorado advance

the contention that here the Commission erred in applying it retrospectively in such manner as to abrogate prices agreed upon in contracts of limited term entered into and substantially performed prior to the enactment of the Act, at a time when neither company was in fact or in law a utility or common carrier, and when each disclaimed all of the privileges and obligations as such. The contracts between Canadian and Colorado, Colorado and Public Service Company, Colorado and Pueblo Gas and Fuel Company, Colorado and the City of Colorado Springs, and Colorado and Wyoming, respectively, were each executed prior to the date on which the act became effective; they were of limited term; and they had been performed in substantial part at the time the Act went into effect. But at all times, the transportation and sale of natural gas in interstate commerce for wholesale distribution to public service companies or municipalities for resale to domestic consumers was subject to regulation by Congress. Missouri v. Kansas Gas Co., 265 U. S. 298; Illinois Natural Gas Co. v. Central Illinois Public Service Co., supra; Federal Power Commission v. Natural Gas Pipeline Co., 315 U. S. 575; Public Utilities Commission v. United Fuel Gas Co., supra. And the exertion of the power of Congress in its regulation of interstate commerce is not fettered by pre-existing contracts or arrangements. The exercise of power under the Commerce Clause cannot be subordinated to arrangements or stipulations previously effected. Contracts and arrangements of that kind necessarily are entered into with knowledge of the paramount authority of Congress to regulate commerce among the states. Union Bridge Co. v. United States, 204 U. S. 364; Monongahela Bridge v. United States, 216 U. S. 177; Philadelphia Co. v. Stimson, 223 U. S. 605; Philadelphia, Baltimore and Washington Railroad Co. v. Schubert, 224 U. S. 603; Greenleaf Lumber Co. v. Garrison, 237 U. S. 251; Continental Co. v. United States, 259 U. S. 156; Sproles v. Binford, 286 U. S. 374; Radio Commission v. Nelson Bros. Co., 289 U. S. 266.

It is emphasized that at the time the contracts were entered into neither of these companies was in fact or in law a public utility or common carrier, and that each disclaimed all of the privileges and obligations as such. These companies have never sought or acquired any certificate of

public convenience and necessity, any franchise, or any right to enter a municipality; they have never advertised or represented that they would sell gas to the public generally; and they have never filed any rate schedule with any regulatory commission or any other authority. At the time the Act became effective, and since, Canadian transported and sold interstate gas to Colorado, and also made sales for resale to a distributing company; and Colorado made sales for resale to one municipality, four or five distributing companies, and two pipelines, and made direct sales to five industrial customers, under private contracts respecting price, quantity, time of delivery, and so forth. But freedom of contract does not place it within the power of companies engaged in business of that kind to restrict or withhold from the control of Congress at a later time so much of the field of regulation of interstate commerce as they choose to bring within the range of their arrangements. Even though executed prior to the enactment of the Act, contracts of that nature are subject to regulation in the public interest. Cf. Mississippi River Fuel Corp. v. Federal Power Commission, 121 F. (2d) 159.

The companies made large investments on the strength of the contracts but that is not decisive, as in the very nature of things they were made subject to the exercise of the paramount authority of regulation. Radio Commission v. Nelson Bros. Co., supra.

Requiring the Impossible of Canadian—Canadian attacks the order relating to its rates and charges on the further score that it requires the company to do the impossible, and violates due process. The contract between Canadian and Colorado requires Canadian to develop, operate, and maintain its properties with diligence, so as to produce sufficient natural gas to meet the requirements of Colorado; to sell the gas to Colorado at cost; to make no contract for the sale of gas that might impair its capacity to produce gas for delivery to Colorado; to credit Colorado with all revenues, income, or profits which it may receive from any other source; and to disburse funds received from any source only in the discharge of its obligations under the contract with Colorado and any other contracts permitted under its provisions, and in payment of principal and in-

terest on its outstanding indebtedness. It is argued that the contract forecloses any possibility of profit to Canadian and therefore the order exacts the impossible and is confiscatory. The power to regulate commerce is subject to the limitations and guarantees of the Constitution. Monongahela Navigation Co. v. United States, 148 U. S. 312; United States v. Chicago, Milwaukee, St. Paul and Pacific Railroad Co., 282 U. S. 311. But permissible regulation of rates does not insure that the business shall produce net revenues, and any rate may be decreased which is not the lowest reasonable rate. Federal Power Commission v. Natural Gas Pipeline Co., supra.

This contention in its entirety proceeds upon the premise that since Canadian under the contract sells gas to Colorado at cost, there is no possibility of profit accruing to Canadian. But apparently the argument fails to give consideration to the fact that in connection with the contract under which Canadian furnishes and Colorado accepts the gas, Canadian received initially $5,000,000 in cash from Standard; that Colorado without cash consideration issued to Southwestern forty-two and one-half per cent of all its common stock, and preferred stock of the value of $1,000,000; that Southwestern shares on that basis in the beneficial ownership of Colorado and in its net earnings from time to time; and that in view of the relation existing between Southwestern and Canadian, Canadian in effect shares accordingly. Taking these and other factors into account, there is no basis for challenging the order on the ground that it exacts the impossible and is confiscatory.

The Sufficiency of the Evidence to Support the Finding of Unreasonableness of Rates and Charges—The finding of the Commission that the rates and charges of the companies were unjust and unreasonable is questioned for want of substantial evidence to support it. The passage of the Act did not automatically overthrow the contracts into which these companies had previously entered. Neither did it *ipso facto* set aside the schedules of charges upon which they had agreed. Such rates and charges could be modified only after an express finding of unreasonableness. Wichita Railroad & Light Co. v. Public Utilities Commission, 260 U. S. 48; Allen W. Hinkel Dry Goods Co. v.

Wichison Industrial Gas Co., 64 F. (2d) 881. And the right of the Commission to make a finding of unreasonableness depends upon the existence of the fact. In the absence of substantial evidence to show that the rates and charges in existence are unreasonable, a finding to that effect constitutes the arbitrary exercise of power by administrative fiat and cannot stand. Interstate Commerce Commission v. Louisville and Nashville Railroad Co., 227 U. S. 88.

But a finding of unreasonableness made after a full hearing carries with it a presumption of correctness, and the burden rests upon him who attacks it on review for want of substantial evidence to show the absence of such evidence. An extended analysis of the voluminous evidence would not serve any useful purpose as no two cases of this kind are alike in point of fact. We are content to say that a careful examination of the entire record convinces us that the finding is supported by substantial evidence, and therefore under section 19(b) of the Act, it is conclusive.

The Question of Value—Coming to the question of the rate base, Canadian and Colorado each submitted evidence tending to show reproduction cost new, less observed depreciation, and they also submitted evidence as to the original cost of the property. Wyoming introduced evidence as to actual construction costs, less observed depreciation, plus working capital and additions to plant. The evidence of the Commission staff was restricted to original cost. After considering the estimates of reproduction cost new, less observed depreciation, the Commission concluded that they were too conjectural to have probative value, as they were not based upon established facts, but were subject to the vagaries of theories and imagination. Turning to the evidence of original cost, the Commission found that the properties were all of comparatively recent acquisition or construction; that the accounting records had been sufficiently adequate and well maintained to permit a ready determination of all costs involved; that the major portion of all cost of Canadian and Colorado had been incurred since the adoption by such companies of an accounting system based on the Code of Accounts of the Public Service Commission of Pennsylvania; that the basic facts were clear and essentially undisputed; that they represented the best and only

reliable evidence respecting property values; and that, in accordance with section 6 of the act, supra, and under the record in the proceeding, no necessity existed to consider other factors than original cost. The Commission then determined original cost as of December 31, 1939, deducted a sum representing accrued depreciation, depletion, and amortization, added an amount for working capital and additions to plant, and in the case of Wyoming made a deduction for customer contributions. The amount reached by that method of computation, denominated by the Commission as prudent investment, was adopted as the rate base. The companies contend that the rate base should have been grounded upon present fair value. It must be conceded that the contention finds support in many cases holding that while actual cost, cost of reproduction new, and other elements affecting value should be taken into account and given their proper weight, the final basis of calculation in the regulation of rates of a public utility is a fair return upon the present fair value of the property used for the convenience of the public. Smyth v. Ames, 169 U. S. 466, 546; San Diego Land Co. v. National City, 174 U. S. 739, 757; San Diego Land & Town Co. v. Jasper, 189 U. S. 439, 442; Wilcox v. Consolidated Gas Co., 212 U. S. 19, 41; The Minnesota Rate Cases, 230 U. S. 352, 434; Southwestern Bell Telephone Co. v. Public Service Commission, 262 U. S. 276, 287; Bluefield Water Works & Improvement Co. v. Public Service Commission, 262 U. S. 679, 690; Board of Public Utility Commissioners v. New York Telephone Co., 271 U. S. 23, 31; McCardle v. Indianapolis Water Co., 272 U. S. 400, 410; St. Louis & O'Fallon Railway Co. v. United States, 279 U. S. 461, 484; Los Angeles Gas & Electric Corp. v. Railroad Commission, 289 U. S. 287, 305.

But the late case of Federal Power Commission v. Natural Gas Pipeline Co., supra, involved an order of the Commission reducing the rates of two companies engaged in business as a single enterprise in the production and transportation interstate of natural gas for sale at wholesale to public utilities, and the court there held that the "Constitution does not bind rate-making bodies to the service of any single formula or combination of formulas. Agencies to whom this legislative power has been delegated are free,

within the ambit of their statutory authority, to make the pragmatic adjustments which may be called for by particular circumstances. Once a fair hearing has been given, proper findings made and other statutory requirements satisfied, the courts cannot intervene in the absence of a clear showing that the limits of due process have been overstepped. If the Commission's order, as applied to the facts before it and viewed in its entirety, produces no arbitrary result, our inquiry is at an end." And the later case of Federal Power Commission v. Hope Natural Gas Co., 320 U. S. 591, similarly involved an order of the Commission requiring a reduction in rates of a company engaged in the business of producing, purchasing, transporting and selling at the state line natural gas for continuous movement and ultimate distribution in other states. There the rate base adopted by the Commission was substantially identical with that here; and there, as here, it was attacked on the ground that present fair value is the only permissible rate base. But the court rejected the contention and upheld the order. In doing so, the court said that, "Under the statutory standard of 'just and reasonable' it is the result reached not the method employed which is controlling . . . It is not the theory but the impact of the rate order which counts. If the total effect of the rate order cannot be said to be unjust and unreasonable, judicial inquiry under the Act is at an end. The fact that the method employed to reach that result may contain infirmities is not then important." These two cases are controlling. And guided by them, it is clear that neither of these orders is to be invalidated for failure of the Commission to use present fair value as the rate base, unless in its totality it oversteps the limits of due process.

Disallowances in Arriving at Original Cost—In arriving at the original cost of the properties, the Commission eliminated certain items appearing on the books of the companies. Canadian paid to Amarillo Oil Company the sum of $5,000,000 in cash for the leaseholds. Their original cost to Amarillo Oil Company was only $1,879,504. Since Canadian and Amarillo were wholly owned subsidiaries of Southwestern, the Commission eliminated $3,120,496, representing the difference between the cost to Amarillo Oil

Company and the amount which Canadian paid. By the Memorandum of Stipulations, Southwestern, the parent of Canadian and Amarillo Oil Company, obligated itself to cause the leaseholds to be devoted to the proposed project. Disregarding the fiction of separate corporate entity, and looking to substance, the contention that the leaseholds should be included at the figure which Canadian paid Amarillo Oil Company rather than the original cost to Amarillo Oil Company amounts in substance to receiving a return on $5,000,000 for property which actually cost less than $2,000,000. There is no proper place in the field of rate-making for synthetic inflation of that kind. Pennsylvania Power & Light Co. v. Federal Power Commission, 139 F. (2d) 445.

As to Colorado, the Commission eliminated $2,352,940, representing the recorded value of stock payments made to Southwestern and Cities Service for entering into contracts for the sale and purchase of gas. By the Memorandum of Stipulations, Southwestern was obligated to require its subsidiary, Canadian, to enter into a contract to sell gas to Colorado, and Cities Service was similarly obligated to require its subsidiaries, Public Service Company and Pueblo Gas and Fuel Company, each, to enter into a contract for the purchase of gas from Colorado. But, according to the records of Colorado, Canadian refused to enter into the contract for the sale of gas to Colorado, and Cities Service refused to direct or permit its subsidiaries to enter into the contracts for the purchase of gas from Colorado; and thereupon Colorado issued to Southwestern as the nominee of Canadian 10,000 shares of preferred and 531,250 shares of common stock, and issued to Cities Service 187,500 shares of common stock. The resolution of the Board of Directors of Colorado authorizing the issuance of such stock recited that the stock first described be issued as part of the consideration for Canadian entering into the contract, and the stock last described be issued in consideration of Cities Service directing its subsidiaries to enter into contracts. The record offers little or no explanation of the refusal to enter into the contracts as provided with binding effect in the Memorandum of Stipulation, or of the failure of Colorado to exact that they be entered into without additional

consideration or inducement. Though the reasons may have been satisfactory to the parties in interest, it is manifest that the legitimate cost of Colorado's property for rate-base purposes could not be swelled by the issuance of stock in circumstances of that kind. Cf. Northwestern Electric Co. v. Federal Power Commission, 321 U. S. 119.

As to Wyoming, the Commission rejected $82,792.57, representing sums paid to Henry L. Doherty & Company for engineers fees. Wyoming and the Doherty Company maintained a contractual arrangement under which the Doherty Company placed at the service of Wyoming its combined experience, advice, and assistance in solving such problems as might arise in connection with the conduct of the business of Wyoming. The tendered advice and assistance related to numerous services, including designing and construction engineering, and fixed the compensation for each, including an engineering fee equal to five per cent of the cost of construction. An affiliate relationship existed between the two companies; Wyoming was unable on request to furnish the Commission any showing that any cost had been incurred in connection with the rendering of engineering services; and there was testimony that the books and records of Wyoming failed to contain any indication that the fees represented any actual cost of services for which the amount was paid. In short, there was no showing satisfactory to the Commission that any engineering services were rendered. The general rule in rate-making against profits in connection with transactions between affiliates warranted the Commission in eliminating the item. Cf. Pennsylvania Power & Light Co. v. Federal Power Commission, supra.

The Commission eliminated from the capital account of Canadian the sum of $129,032, being expenditures previously charged to current operating expense but now sought to be capitalized; it made a like deduction of $440,050 from the account of Colorado; and that action is challenged. In each instance the company added or sought to add the amount in arriving at its claimed original cost. The amount represented reaccounting rather than the correction of accounting, for the charges were made to operating expense in conformity with the established ac-

counting policy of the company in effect at the time, and they were never considered capital investment until the Commission began its investigation. In respect of many expenditures there is at best an indistinct line of demarcation between operating costs and capital costs. It often is difficult to blueprint a clear distinction between expenditures made for operation and maintenance and those made for construction. And therefore a natural gas company, as defined by the Act, must be allowed to exercise a measure of discretion in making its determination between the two. But a method, reasonably acceptable to good accounting, must be adopted and adhered to consistently. Consistent principles and practices of accounting must be followed. Change cannot be made at will. These companies deliberately exercised their discretion in charging these expenditures to expenses; Canadian has fully recovered from Colorado its expense now sought to be capitalized; and Colorado has treated its expenditures now in question as necessary operating expense to be deducted from earnings before arriving at net profits. The Commission was well within the ambit of its authority in making the deductions on the ground that it would do violence to recognized principles of equity to permit these companies at this late hour to shift their position and treat retroactively these items as capital investment upon which they are entitled to receive return. Cf. Federal Power Commission v. Natural Gas Pipeline Co., supra; Northwestern Electric Co. v. Federal Power Commission, 125 F. (2d) 882, affirmed, 321 U. S. 119; City of Wheeling v. National Gas Co., 175 S. E. 339; Peoples Gas Light & Coke Co. v. Slattery, 25 N. E. (2d) 482.

The Commission made a deduction of $366,507 from the original cost claimed by Canadian for interest during construction, and that action is challenged. Canadian recorded on its books a charge for interest during construction, computed on the basis of a construction period beginning May 1, 1927, and ending October 31, 1928, and including the full amount which Canadian paid Amarillo Oil Company for the leaseholds. The Commission found that regular deliveries of gas commenced the latter part of June, 1928, and continued thereafter. The Commission determined that the construction period ended July 1, 1928, and disallowed interest after that date. The books of Wyoming showed the

capitalization of interest during construction. The amount included interest on main line construction and on lateral construction. The Commission disallowed the claim in part on the ground that it represented interest computed on a proportion of the total cost of the property, estimated by the company to be in excess of that required to handle the business actually done during the period. The Commission characterized the claim as the capitalization of a fictitious and arbitrary amount after the close of the construction period, and stated that interest ceases to be a cost of the original plant when commercial operations begin. These companies were not entitled to interest after the construction period ended and they began to receive earnings. Alabama Power Co. v. McNinch, 94 F. (2d) 601.

Elaboration is unnecessary concerning the disallowance of interest on the amount which Canadian paid Amarillo Oil Company for the leaseholds in excess of the original cost to Amarillo Oil Company. We have previously said that, due to the affiliate relation between Canadian and Amarillo Oil Company, the Commission in arriving at the original cost providently included the property at the amount of the original cost to Amarillo Oil Company. That being its cost for rate-base purposes, it follows that interest on the excess could not be included in the rate base.

The Claim for Going Concern Value—Wyoming claimed an allowance for going concern value as part of its rate base. In rejecting the claim and failing to make any allowance for that element, the Commission found that the amount claimed represented a judgment figure wholly unrelated to any costs or outlays, and was therefore deemed unjustified. It is well settled "that there is an element of value in an assembled and established plant, doing business and earning money, over one not thus advanced" and that such "element of value is a property right, and should be considered in determining the value of the property, upon which the owner has a right to make a fair return when the same is privately owned although dedicated to public use." Des Moines Gas Co. v. City of Des Moines, 238 U. S. 153, 165; City and County of Denver v. Denver Union Water Co., 246 U. S. 178, 191, 192; McCardle v. Indianapolis Water Co., supra; Los Angeles Gas & Electric Corp. v.

Railroad Commission, supra. But even though it is an element for appropriate inclusion in the rate base, there is no constitutional exaction that it be separately stated as such and added to cost figures attributable the physical properties. Columbus Gas & Fuel Co. v. Public Utilities Commission, 292 U. S. 398, 411; Denver Stock Yard Co. v. United States, 304 U. S. 470, 479; Driscoll v. Edison Light & Power Co., 307 U. S. 104; Federal Power Commission v. Natural Gas Pipeline Co., supra. The requirement may be satisfied if a reasonable allowance is "reflected in the other items and particularly in the appraisal of the physical assets as part of the assembled whole." Columbus Gas & Fuel Co. v. Public Utilities Commission, supra.

The amount claimed by the company was $175,000. A valuation engineer residing in New Jersey testified in support of the claim. He stated that he did not employ any mathematical formula in arriving at his conclusion as to amount, and he admitted that it was only a judgment figure. He stated with commendable candor that he reached it "just as a horsetrader looks at a horse and decides what it is worth". The record fails to indicate affirmatively whether the element was indirectly reflected to any extent in other items and in the appraisal of other properties as part of the assembled whole. But in any event, there is no basis on which to rest the conclusion that the failure of the Commission to state separately and add an amount as going concern value overstepped the limits of due process.

Allocation of Cost of Service—The orders are assailed for failure of the Commission to make a separation or allocation of the property used in regular business from that used in unregulated business. Under section 1 of the Act, natural gas moved in interstate commerce and sold for ultimate distribution to the public is subject to regulation by the Commission, but gas transported in interstate commerce and not sold for such distribution to the public as well as gas sold intrastate is not subject to regulation. Each of these companies is engaged in both kinds of business. The Commission expressed its awareness of the necessity of determining the reasonableness or unreasonableness of the rates and charges subject to its jurisdiction. observed that this required the distribution of the total

costs of operations, including depreciation, taxes, and a fair return, among the various customers served, individually or by appropriate groups, and commented that to the extent that such costs allocated to sales under the jurisdiction of the Commission were less than revenues received, the rates and charges made were unjust and unreasonable, and revenues must be reduced accordingly. The Commission further stated that it did not follow from that obligation that an allocation of physical property or portions thereof must be made before any excessive returns were determined. After observing that nowhere in all the evidence submitted by Canadian and Colorado was there a complete presentation of the entire operations, broken down between jurisdictional and nonjurisdictional operations, the Commission determined that all which could be accomplished by an allocation of physical properties could be attained by allocating costs including the return. And the Commission added that such method was by far the most practical and business-like. Following these observations, statements, and findings, the Commission made the allocation as to each company.

Where, as here, a natural gas company is engaged in an integrated business, part of which is subject to regulation and part of which lies beyond the reach of the regulatory jurisdiction of the Commission, some separation of the property, capital, and revenue is essential in order that regulation may be confined to its permitted field. The separation may be appropriately effected by estimating or appraising the value of the property used in the regulated business and that used in the unregulated business. Smith v. Illinois Bell Telephone Company, 282 U. S. 133. But that method in its completeness is not always exclusive of others. The separation or allocation may be effected by application of any formula which makes the principle a working one suitably adapted to the particular circumstances. Columbus Gas & Fuel Co. v. Public Utilities Commission, supra.

The integrated properties of these companies were designed and are being used in making both direct sales and resales. The companies rely on the same transmission and other facilities in serving both classes of customers, and

both classes of customers jointly share the benefit of the same facilities and gas supply. In these particular circumstances, an allocation of the cost of supplying gas service to customers cannot be said to be a fatally inappropriate or infirm means of effectuating a separateness of the property and capital used in the integrated business.

But, assuming that the requisite separation may be accomplished by an allocation of cost of service, the method used by the Commission is said to be erroneous. It is argued among other things that it assumes that all of the property is used in common in the conduct of all business, whereas a large portion is used exclusively in the regulated portion, another part is used exclusively in the unregulated portion, and only a part is used in common in both businesses; that in respect to the property which is used in common for both businesses, it fails to give consideration to the priority or preferential use of such property in supplying gas for domestic consumption as against unregulated business, and ignores actual peak demands and load factors; that it operates to minimize all costs, produces apparent cost much less than actual cost, and shifts cost from regulated to unregulated business; and that it is unsound both in fact and law. It may be conceded, without deciding, that the method is not free from defects or imperfections in all its aspects. But even so it cannot be said that as the consequence, the impact of the orders of reduction, each in its totality, produces arbitrary results or oversteps the bounds of due process. Therefore the orders are not open to further judicial inquiry on these grounds. Federal Power Commission v. Natural Gas Pipeline Co., supra; Federal Power Commission v. Hope Natural Gas Co., supra.

Depletion, Depreciation and Amortization—The companies introduced evidence relating to accrued depreciation. It was based upon observed per cent condition of the property. Accrued depletion as determined by Canadian was based on estimates of original and remaining gas reserves. The evidence of the staff of the Commission treated accrued and annual allowances for depreciation on the basis of the application of the service-life principle. The Commission observed that if the theory of observed per cent condition

of the property were carried out consistently, it might be considered as having some elements of reasonableness; that the small observed depreciation would find its counterpart in an equivalently small annual charge to operating expenses to cover the yearly added amount of observed depreciation; that this was not done in the estimates submitted by these companies; that, instead, in calculating expenses chargeable to the consumer high depreciation charges were computed, and in computing return to the company a small deduction from the cost of plant was computed. And after full consideration, the Commission adopted the service-life principle for determining annual and accrued depreciation and the production method for determining annual and accrued depletion of production facilities.

Section 6 of the Act empowers the Commission to determine the depreciation in property used by a natural gas company, but it fails to prescribe the method to be used in the discharge of that function. Depreciation represents the loss, not restored by current maintenance, causing the ultimate retirement of the property. The factors entering into it usually are wear and tear, decay, inadequacy, and obsolescence. And in determining reasonable rates to be charged by a public utility, it is proper to include in the operating expenses an allowance for consumption of capital in order that the integrity of the investment in the service may be maintained. Lindheimer v. Illinois Bell Telephone Co., 292 U. S. 151.

As we understand, the Commission in arriving at accrued depreciation determined the amount to be deducted from original cost on the age-life basis by applying the straight life service method to the property. The contention that the testimony of valuation engineers who examined the property and made estimates in respect of its condition should have been accepted in preference to calculations based on averages and assumptions finds its genesis in Pacific Gas & Electric Co. v. City and County of San Francisco, 265 U. S. 403, and McCardle v. Indianapolis Water Co., supra. But there is no basis in this record on which it can be concluded that the determination of depreciation in the manner adopted by the Commission will result in any of these orders in its entirety causing a failure to restore

the capital investment at the end of the term, and therefore no deprivation of property is involved. Once more, in the absence of impingment upon due process, review is ended. Federal Power Commision v. Natural Gas Pipeline Co., supra; Federal Power Commission v. Hope Natural Gas Co., supra.

Gas Reserves—In connection with its determination of annual allowances for depreciation and depletion, the Commission found that Canadian's remaining recoverable gas reserves as of December 31, 1939, were not less than 2,800,000,000 Mcf at 14.65 pounds pressure base and an abandonment pressure of approximately 50 pounds; and that at the then present and expected future rate of production of about 55,000,000 Mcf per year, such reserves would last 53 years. The finding is characterized as arbitrary, capricious, and without any basis in the record. It is said that the reserves were much less in amount and that as a source of supply for long distance pipe lines they will not extend in width beyond 1956. The field is about 125 miles long and varies from 10 to 40 miles. It comprises approximately 1,500,000 acres, of which about 1,000,000 acres produce sweet gas, and some 500,000 acres produce sour gas. Oil is produced in a portion of the field. Natural gas was discovered in 1918, on acreage now owned by Canadian; and at the time of the hearings in these proceedings there were about 1650 wells producing gas only, and about 4200 wells producing both oil and gas.

The two methods most frequently used in estimating recoverable gas reserves are the rock pressure decline method and the sand thickness porosity method. Using the pressure decline method, an experienced geologist and petroleum engineer on the staff of the Commission testified at length. He estimated that the reserves for the entire field were 22,420,000,000 Mcf, and that those of Canadian were 3,645,213,000 Mcf. For the purpose of determining the true average or equilibrium pressure prevailing throughout the field, he divided the field into areas of comparatively equal pressures, called quadrants, and made an estimate for each quadrant. His estimate in the aggregate was the sum of his estimates for the several quadrants. A scientific article published in 1933 was introduced in evidence in which the

recoverable reserves in the field were estimated to be 16,100,000,000 Mcf. Two qualified experts testified for Canadian. One used the sand thickness porosity method, and he estimated that the reserves in the field amounted to 9,532,027,596. The other used the open flow method which is a variation of the sand thickness porosity method, and his estimate of the field was 8,840,132,111 Mcf. And there was much other evidence having bearing upon the question. The Commission found itself unable to accept in toto any of the estimates. The Commission observed that the pressure decline method is recognized as a satisfactory method of estimating gas reserves in fields that are depleted as much as fifteen per cent or more and where reliable pressure and production data are available; that the Texas Panhandle Field met these qualifications; that it was a well developed field; and that the pressure and production records maintained by the Railroad Commission of that state were adequate and satisfactory. The Commission found that the pressure decline method was to be desired over the methods used by the witnesses for the company; that the estimates of the witnesses for the company were not founded on proper data and must be considered essentially unreliable; that if the method of averaging quadrants was incorrect, it favored the company position of lower reserves; that the acreage of the company was among the very best in the entire field; and that after weighing all pertinent facts of record and making due allowance for the criticisms of the estimate submitted by the Commission staff, the recoverable reserves were found to be not less than 2,800,000,000 Mcf of gas.

The rock pressure decline method of estimating recoverable reserves of natural gas is not only accepted practice among mining engineers but it has been accorded judicial recognition. Dayton Power & Light Co. v. Public Utilities Commission, 292 U. S. 290. It lay within the discretion of the Commission to select that method as the most satisfactory and reliable means of determining the reserves of Canadian. And the Commission was not required to accept at face value the opinion evidence of the witnesses who testified as experts in respect to volume. The weight to be given to their evidence was a matter for the appraisal and

judgment of the Commission, in the light of the circumstances. Existing volume, pressure differentials and consequent drainage, and other recovery factors should be given consideration in arriving at a final conclusion concerning the reserves. But it nowhere appears that the Commission failed appropriately to weigh these elements.

As has already been said, section 19(b) of the Act provides that a finding of fact made by the Commission shall be conclusive on review if it is supported by substantial evidence. Congress thus committed to the Commission the function of weighing evidence, drawing inferences from the facts and circumstances established, and choosing between conflicting inferences. And a court is not free to substitute its view of the facts for that of the Commission. The underlying considerations which actuated Congress in vesting that power in the Commission are clear. The Commission often deals with subjects which are specialized, technical, and complex. It is relatively better staffed for its task than are the courts. And its members frequently bring to the discharge of their duties rich experience in those particular fields. The determination of the recoverable reserves of this company necessarily involved specialized and technical factors. The evidence relating to the question extends to great lengths. No useful end would be served by a detailed analysis of it. We think the finding is supported by substantial evidence and therefore is not vulnerable to the charge of lacking basis in the record.

Fair Rate of Return—The evidence submitted by the companies relating to a fair annual return upon the rate base varied in amount from 8 per cent to 9.17 per cent, while that of the Commission staff was 6½ per cent. The Commission fixed 6½ per cent for all three companies. The Commission stated in that connection that there was no exact formula for determining a reasonable rate of return; that in the final analysis the rate must be the best judgment of the Commission, founded upon the evidence and guided by the basic facts required by law to be considered; that consideration must be given to the return earned by like investments which are attended by corresponding risks and uncertainties in the same vicinity over the same period of time; that Canadian had a long-term and essentially

cost of service contract with its affiliate, Colorado; that the sales of Colorado and Wyoming were also principally to subsidiaries or affiliates and to stable markets; that Colorado's principal industrial sales were also to an affiliate—Colorado Fuel and Iron Corporation; and that all these facts materially reduced basic business risks that might be present under other circumstances.

The rate of return which will constitute just compensation depends upon the circumstances. A public utility is entitled to such rates as will permit it to earn a return on the value of its property devoted to the convenience of the public substantially equal to that generally being earned in that area by other business enterprises which are attended by corresponding characteristics, including uncertainties, risks, hazards, and other elements affecting the operations. The return should be sufficient in amount to assure confidence in the financial soundness of the utility, and to enable it under efficient management to maintain its credit. Bluefield Water Works & Improvement Co. v. Public Service Commission, supra. But no formula can be laid down which will apply uniformly in all cases or to all kinds of utilities. That which is fair for one may be quite inadequate for another, depending upon the difference in circumstances. And the ascertainment of a fair return in a given case is a matter incapable of exact mathematical demonstration. It is one of reasonable approximation having its basis in a proper consideration of all relevant facts. Willcox v. Consolidated Gas Co., supra; United Railways and Electric Co. v. West, 280 U. S. 234.

Making application of these principals, and taking into consideration the history of these companies, their relations and opportunities, their position for future financing, the stability of demand for their product, and other relevant factors, we think that a return of 6½ per cent on the rate base as fixed by the Commission is not so inadequate as to amount to confiscation. Federal Power Commission v. Natural Gas Pipeline Co., supra; Federal Power Commission v. Hope Natural Gas Co., supra.

Finally, the Commission made allowances for working capital and additions to plant of all three companies, and these are attacked for insufficiency in amount; the Commis-

sion rejected some claims, and the companies predicate error on that action; and the Commission made certain adjustments, of which the companies complain. We do not discuss these seriatim. To do so would only extend this opinion, without adding anything of value to the accelerating accumulation of judicial utterances. The Commission was empowered to make pragmatic adjustments for which the particular circumstances call. Federal Power Commission v. Natural Gas Pipeline Co., supra. On the whole record, we are unable to say that any of these orders in its total effect produces any arbitrary result or does violence to due mission v. Natural Gas Pipeline Co., supra; Federal Power Commission v. Hope Natural Gas Co., supra.

The orders are severally

AFFIRMED.

Decree.

Twenty-seventh Day, May Term, Saturday, July 8th, A. D. 1944. Before Honorable Orie L. Phillips, Honorable Sam G. Bratton and Honorable Alfred P. Murrah, Circuit Judges.

This cause came on to be heard on the transcript of record from the Federal Power Commission, and was argued by counsel.

Upon consideration whereof, it is now here ordered, adjudged and decreed by this Court that the order of March 18, 1942 of the Federal Power Commission in this cause be, and the same is hereby affirmed.

Stay Order.

Twenty-seventh Day, May Term, Saturday, July 8th, A. D. 1944. Before Honorable Orie L. Phillips, Honorable Sam G. Bratton and Honorable Alfred P. Murrah, Circuit Judges.

This matter coming on for hearing this day before the Court on the motion of petitioner for continuance of stay order and stay of issuance of mandate; and the Court having considered said motion;

And the Court having this day entered its judgment herein pursuant to the Court's opinion heretofore filed in this cause;

It is now ordered that the stay order entered herein on May 16, 1942, on the terms and conditions therein set forth, be continued in full force and effect for a period of 60 days from and after the date hereof, and if within said period of 60 days a petition for certiorari is filed in the Supreme Court of the United States and a certificate thereof is filed in this Court within 60 days pursuant to Rule 28, then said stay order shall continue until final disposition by the Supreme Court.

It is further ordered that the issuance of mandate shall be stayed for a period of 60 days from the date hereof, and if within said period of 60 days a petition for certiorari is filed in the Supreme Court of the United States, with due certification as aforesaid, then the issuance of mandate shall be stayed until final disposition by the Supreme Court.

Petition for Rehearing.

INDEX.

	PAGES
Petition for Rehearing	1- 5
Certificate of Counsel	5
Brief in Support of Petition	7-36
The Extent Geographically of the Rate Regulatory Jurisdiction of the Commission over this Petitioner	7-12
The Duty of Judicial Review	12-18
The Burden of Proof and the Presumption of Correctness on Review	18-20
The Commission Determination of "Original Cost"	20-23
The Commission Fixation of "Service Life"	23-25
"Going Concern"	25-28
"Allocation of Cost of Service"	28-33
"Due Process"	33-36

AUTHORITIES.

Addison v. Holly Hill Fruit Products, Inc., ...U.S...., 64 Sup. Ct. 1215 ..... 7, 20

Alabama Power Co. v. Federal Power Comm. (C.C.A. 5) 136 F.(2d) 929 29

Baumgartner v. United States, ...U.S...., 64 Sup. Ct. 1240 ..... 18, 19

Chicago District Electric Generating Corp., (F.P.C.) 39 P.U.R. (n.s.) 263 22

Columbus Gas & Fuel Co. v. Public Service Comm., 292 U.S. 398, 54 Sup. Ct. 763 ..... 3, 29-31

Congressional Committee Report, re Natural Gas Act 9-10, 11, 14, 35

AUTHORITIES (Continued)

PAGES

Eastern Central Ass'n v. United States, ...U.S....., 64 Sup. Ct. 499 29

Federal Power Comm. v. Hope Natural Gas Co., ...U.S....., 64 Sup. Ct. 281 .....4, 8, 10, 13, 14, 15, 16

Illinois Natural Gas Co. v. Central Illinois Public Service Co., 314 U.S. 498, 62 Sup. Ct. 381 .....8, 9

Jersey Central Power & Light Co. v. Federal Power Comm., 319 U.S. 61, 63 Sup. Ct. 953 10

Los Angeles Gas and Electric Corp. v. Railroad Comm., 289 U.S. 287, 53 Sup. Ct. 637 22-23

Natural Gas Pipeline Co. v. Federal Power Comm., 315 U.S. 575, 62 Sup. Ct. 736 15

Penn. Power and Light Co. v. Federal Power Comm. (C.C.A. 3), 139 F.(2d) 445 23

Security Flour Mills Co. v. Comm. Int. Rev., ...U.S....., 64 Sup. Ct. 596 19

Simpson v. Shepard, 230 U.S. 352, 33 Sup. Ct. 729 31-32

Smith v. Illinois Bell Telephone Co., 282 U.S. 133, 51 Sup. Ct. 65 .....12, 22, 28, 29, 32

Stark v. Wickard, ...U.S....., 64 Sup. Ct. 559 17

IN THE

UNITED STATES CIRCUIT COURT OF APPEALS

TENTH CIRCUIT.

No. 2561

COLORADO-WYOMING GAS COMPANY, a corporation,
PETITIONER,

vs.

FEDERAL POWER COMMISSION; COLORADO INTERSTATE GAS COMPANY, a corporation; CITY & COUNTY OF DENVER, COLORADO; PUBLIC SERVICE COMPANY OF COLORADO; and CANADIAN RIVER GAS COMPANY, RESPONDENTS.

ON PETITION TO REVIEW AND SET ASIDE ORDER OF THE FEDERAL POWER COMMISSION.

PETITION FOR REHEARING.

Comes now Colorado-Wyoming Gas Company, Petitioner herein, and hereby petitions this Court for rehearing, reconsideration, correction and vacation of its opinion and the decree pursuant thereto. Sundry of the more substantial matters and issues decided erroneously, as are patent from a consideration of the record, the law and the opinion, are stated briefly and respectfully, as follows:

1. This Court has ignored the issue of jurisdiction presented by this Petitioner, to-wit: That the jurisdiction of the Federal Power Commission over this Petitioner in this rate case under the Natural Gas Act is limited to rate regulatory jurisdiction at the Cheyenne, Wyoming "city gate" only. The findings of the Commission, adopted by the Court, are not supported by the record and are contrary to law.

2. This Court in affirming the so-called "original cost" rate base of the Commission has failed and neglected to consider the fact that the alleged "original cost" as determined by the Commission is not the *entire* "original cost" in fact and is not supported by but contrary to the record herein. The Commission determination, among other things, does not consider or embrace engineering design or construction.

3. This Court erred in approving the action of the Commission in adopting "original cost," so-called, as the exclusive measure of rate base, and in discarding the principle of "fair value."

4. This Court in approving "the service-life principle for determining annual and accrued depreciation," promulgated by the Commission, disregarded the record in this case, wherein it affirmatively and specifically appears that there is no foundation of "substantial evidence" to support the speculative conclusions of service life indulged by the Commission and its staff, and incorporated into its order here under review. The determination of service life depends upon the existence of basic facts, absent in the record herein.

5. The Commission determination of "depreciated original cost," adopted by the Court, is not supported by the record and is contrary to law.

6. This Court in approving the disallowance by the Commission of "going concern value" disregarded the clear, specific and uncontroverted evidence in the record that the "original cost," as found by the Commission, includes only "bare bone" costs of physical items of property, and does not reflect "a reasonable allowance" or any allowance whatever "in the other items and particularly in the appraisal of the physical assets as part of the assembled whole."

7. The Court erred in ignoring the affirmative and uncontroverted evidence by Petitioner of the fact of "going concern value" of its property and business.

8. The opinion of the Court under the subject title of "Allocation of Cost of Service," as related to this Petitioner involves assumptions and conclusions both of law and fact directly contrary to the record and controlling law, and particularly to-wit:

(1) It is assumed that the property of this Petitioner and the properties of Colorado Interstate Gas Company and Canadian River Gas Company, admittedly separate and independent for rate making purposes, nevertheless are and can be "integrated" as a single system for purposes of allocation, which is necessary and incident to rate making in this case.

(2) It is assumed that the "formula" of alleged allocation indulged by the Commission is legalized by *Columbus Gas and Fuel Company v. Public Utility Commission*, 292 U. S. 398, 411, which assumption is contrary to the express language of that decision, and other controlling law.

(3) The inaccuracy, manifest in the record, of the asserted factual basis for the Commission's conclusions as to "Allocation of Cost of Service," so-called, is ignored by the Court. The law requires a property allocation and is not complied with by a substitute "formula" described as "cost allocation" but admittedly not involving any allocation of property whatever.

(4) The Court has ignored the fact that the Commission "allocation," so-called, is not based in whole or in part upon the property and operations of this Petitioner, but contrary to law is predicated on the operations of Colorado Interstate Gas Company.

9. The Court, in applying the settled rule that there is a presumption on review that the action of the administrative agency is correct and the burden of proving error is on Petitioner, also assumes and predicates its opinion on the erroneous legal view that the burden of proof throughout this case, both before the Commission and before this Court, rests upon the Petitioner.

10. The Court erred in its stated conclusion: "And the right of the Commission to make a finding of unreasonableness depends upon the existence of the fact. * * * We are content to say that a careful examination of the entire record convinces us that the finding is supported by substantial evidence * * *", in that under the Natural Gas Act and the law of the land the review provided and to which this Petitioner is entitled is a review of "the facts" upon which the asserted ultimate conclusion of "unreasonableness" rests, to determine whether such "facts" are supported by "substantial evidence."

11. The Court erroneously has relied upon *Federal Power Commission v. Hope Natural Gas Co.*, 320 U. S. 591, as controlling authority, requiring it to decide the issues of law and fact in this case, against this Petitioner. In that case it is declared the propriety of the Commission's order must be examined by the reviewing court "as applied to the facts before it" (the Commission), which examination this Court has not made "as applied to the facts" in the record.

12. The Court, under its announced conception of judicial duty and limitation of power, has discarded "the law of the land," and thus avoided the express and unambiguous direction of the Congress to this and other Courts of review, embodied in the Natural Gas Act.

13. The Court, contrary to the declared purpose and terms of the Natural Gas Act, has construed that act as denying altogether the right of review and even to the extent required by the Constitution to protect against "confiscation," and thereby has denied to this petitioner its rights under the Fifth Amendment to the Constitution.

14. The Court in affirming the order of the Commission and in its opinion and judgment herein, has denied to this Petitioner "due process of law," under established, ordered and orderly processes of constitutional government, in that, government by administrative edict, unsupported by or contrary to law and fact, is held to be immune from the express judicial review of the Commission determination of, (1) basic material fact, (2) ultimate conclusions, and (3) questions of law.

Wherefore, Colorado-Wyoming Gas Company prays that

rehearing be granted herein, the judgment vacated, the opinion withdrawn, and the cause remanded to the Federal Power Commision for further proceedings conformable to the facts and controlling law.

Respectfully submitted,

DONALD C. MCCREERY,
PAUL W. LEE,
GEORGE H. SHAW,
WM. A. BRYANS, III,
CHARLES J. KELLY,
Attorneys for Petitioner.

CERTIFICATE OF COUNSEL.

I, DONALD C. MCCREERY, one of counsel for the above-named Petitioner, Colorado-Wyoming Gas Company, do hereby declare and certify that the foregoing petition for rehearing is presented in good faith and not for delay.

DONALD C. MCCREERY.

FILED
JUL 26 1944
Robert B Carter, Jr.
Clerk

MEMORANDUM BRIEF IN SUPPORT OF PETITION FOR REHEARING.

This petition for rehearing is neither routine nor casual. It is addressed to fundamental misconceptions of both law and fact by this Court: (1) of the ambit of the Commission's statutory power; (2) of the manner in which that authority legally may be exercised; (3) of the probative substance of the record; (4) of the legal propriety of the ultimate conclusions of the Commission; (5) of the character and extent of the duty of review delegated to this Court; and (6) of controlling principles of government, mandates of Congress and other law of the land.

The Extent Geographically of the Rate Regulatory Jurisdiction of the Commission over this Petitioner.

The position of this petitioner is that the one and *only* sale for resale by it in *interstate* commerce (Sec. 1(b) of the Act) that is, "the sale of natural gas across state lines," is at the "city-gate," Cheyenne, Wyoming; and that *all* "city-gate" sales for resale in Colorado are made in *intrastate* commerce.

This issue, presented herein in our main brief (pp. 147-160) and reply brief (pp. 24-26), to which the attention of the Court again is urged, is neither considered nor resolved by this Court in its opinion. The action of the Commission in summarily disposing of this question by merely assuming rate regulatory jurisdiction over *all* operations of Colorado-Wyoming Company, in Colorado as well as at the "city-gate," Cheyenne, Wyoming, is (negatively and inferentially) adopted by this Court. This petitioner is entitled upon this issue, as well as upon other issues in the case, to a separate, direct and specific consideration and determination thereof by this Court, under the terms of the Natural Gas Act, the facts in this record and other controlling law.

> "The determination of the extent of authority given to a delegated agency by Congress is not left for the decision of him in whom authority is vested."
>
> *Addison v. Holly Hill Fruit Products, Inc.* (June 5, 1944) ..... U. S. .....; 64 Sup. Ct. 1215, 1220.

Colorado-Wyoming Company purchases its gas supply *in Colorado* (at Littleton) from Colorado-Interstate Gas Company. Such completed sale by the latter named company to petitioner is subject to the rate regulatory authority of the Commission, and that authority has been exercised by the Commission. *Colorado Interstate Gas Co. v. Federal Power Commission, et al.* (No. 2550, in this Court). The system of the two companies are connected for the purposes of such sale, purchase and delivery. The two systems, however, are not "integrated," nor in any sense a single system. Upon this, the record is clear, (Pet. Main. Br., pp. 30-31, Reply Br. pp. 18-19). This fact is admitted by the Commission in its opinion (Op. R., Vol. I., p. 79) and by the impressive fact that throughout the proceedings before the Commission and the rate determinations made by it, Colorado-Wyoming Company was of necessity considered and dealt with as wholly separate from and independent of Colorado Interstate Gas Company (save only that the Commission, unsupported by fact, resorted to the fiction of "integration" for purposes of its "allocation of cost," so-called). Colorado-Wyoming Company, then an operating company, was no part of or in any manner considered in the agreed plan of development (Ex. I, p. 7, Rec. Vol. III) of the Texas pipeline to Denver (Op. of Ct., pp. 3-5) but became a purchaser of such gas at a later date because of the unexpected exhaustion of the Wellington Colorado Field (Op. of Ct., p. 6) (Comm. Ex. 51, R. Vol. III, pp. 1-6). The Commission action is responsive, neither to fact, logic nor consistency.

To buttress its assumption of enlarged geographic jurisdiction the Commission relied upon *Illinois Natural Gas Company v. Central Illinois Public Service Co., et al,* 314 U. S. 498, 62 Sup. Ct. 381. This contention of the Commission is answered fully in our main and reply briefs, and our position in that behalf is supported in the later opinion of the Supreme Court in *Federal Power Commission, et al v. Hope Natural Gas Co.*, ..., U. S. .....; 64 Sup. Ct. 281.

Therein that Court differentiates and distinguishes the ambit of rate making authority under Sections 4 and 5 of the Act, and the further unrestricted authority of the Commission with respect to extension or abandonment of facilities and service and certificates of public convenience and

necessity under Section 7 of the Act. It is entirely clear that these two authorities, independently delegated to the Commission, stem from separate and different basic jurisdictional facts. The Supreme Court, after referring to *Illinois Natural Gas Company v. Public Service Co., supra,* which relates only to the jurisdiction of the Commission under Sec. 7 of the Act, declares:

"As stated in the House Report the 'basic purpose' of this legislation was 'to occupy' the field in which (Note: Citing the *Kansas Gas* and *Attleboro cases)* the States might not act. * * * In accomplishing that purpose the bill was designed to take 'no authority from the State Commissions' and was 'so drawn as to complement and in no manner usurp State regulatory authority' * * *

* * *

"The Federal Power Commission was given broad powers of regulation. The fixing of 'just and reasonable' rates (Sec. 4) with the powers attendant thereto *(Note:* The power to investigate and ascertain the 'actual legitimate cost' of property (Sec. 6), the requirement as to books and records (Sec. 8), control over rates of depreciation (Sec. 9), the requirement for periodic and special reports (Sec. 10), the broad powers of investigation (Sec. 14), are among the chief powers supporting the rate making function) was the heart of the new regulatory system. Moreover, the Commission was given certain authority by Sec. 7 (a), on a finding that the action was necessary or desirable 'in the public interest' to require natural gas companies to extend or improve their transportation facilities and to sell gas to any authorized local distributor. By Sec. 7 (b) it was given control over the abandonment of facilities or of service, and by Sec. 7 (c) (as amended) * * * limited grandfather rights were granted companies desiring to extend their facilities and services over the routes or within the area which they were already serving. Moreover, Sec. 7 (c) was broadened so as to require certificates of public convenience and necessity not only where the extensions were being made to markets in which natural gas was already being sold by another company but in other situations as well.

* * *

"* * * But the Commission was not asked here for a certificate of public convenience and necessity under Sec. 7 for any proposed construction. *It was faced with a determination of the amount which a private operator should be allowed to earn from the sale of natural gas across state lines through an established distribution system.* Secs. 4 and 5, not Sec. 7, provide the standards for that determination.

"* * * *We hardly can assume, in view of the history of the Act and its provisions, that the resales intrastate by the customer companies which distribute the gas to ultimate consumers in Ohio and Pennsylvania are subject to the rate making power of the Commission.* * * * The Committee report stated that the Act provided 'for regulation along recognized and more or less standardized lines' and that there was 'nothing novel in its provisions.' * * * *Sec. 4 (a) and Sec. 5 (a) contain only the conventional standards of rate making for natural gas companies.*" (Emphasis ours.)

Under Section 7 the general supervisory jurisdiction of the Commission reaches every "natural gas company" as defined by the Act. Colorado-Wyoming Company concededly is a "natural gas company" under the Act, that is, "engaged in the transportation of natural gas interstate commerce, or the sale in interstate commerce of such gas for resale." But the rate regulatory jurisdiction of the Commission under Sections 4 and 5 is measured and limited by and to actual *interstate* sales for resale (Sec. 1 (b)), or as stated by the Supreme Court in the *Hope Natural Gas Co. case*, "sale of natural gas across state lines." See also, *Jersey Central Power & Light Co. v. Federal Power Commission*, 319 U. S. 61, 63 Sup. Ct. 953, 960, and Reply Brief of Petitioner, pp. 24-26.

The decision in the *Hope Natural Gas Co. case* obviously is no authority whatever either in fact or in law for the conclusion of the Commission that because of the connection of the pipe line system of Colorado-Wyoming Company with that of Colorado-Interstate Gas Company, the *intrastate* sales for resale of this petitioner in Colorado are "subject to the rate making powers of the Commission." Both the

Congressional Committee Report and the Supreme Court are in agreement as to the "basic purpose" of the Act, which was "to occupy" a limited field, particularly defined in the Committee Report upon which Congress relied and acted. To accomplish this the bill "was designed" and "so drawn" to take "no authority from State Commissions" and "in no manner usurp State regulatory authority." And declare both Committee Report and the Supreme Court there was "nothing novel in its provisions." To the States, says Congress, the Supreme Court concurring, actually were left all problems of local rate regulation.

It is therefore unquestioned that the area of the rate making authority of the Commission is strictly limited and intended to be so. The restricted ambit of such power, declared in both affirmative and negative language (Sec. 1 (b)) must control the Commission and must be enforced by the Courts if Congress is to continue to perform the legislative functions delegated to it. Whatever broad powers the Commission may have *within* the ambit of its statutory authority (Op. Ct., p. 11) can afford neither justification nor excuse for the assertion by it of enlarged and forbidden boundaries and frontiers of power.

Yet the Commission, with the apparent approval of this Court, has asserted rate regulatory jurisdiction over local Colorado sales for resale by petitioner, which buys all of its natural gas requirements *locally in Colorado.* This petitioner, moreover, is neither an "associate" of or "integrated" with Colorado-Interstate Gas Company, in fact or in law, but merely one of its "customer companies" (Op. Ct., p. 6). The judgment of every administrative agency or Court should be so schooled that by mere sounding phrases it is not fooled. As a simple and practical matter and one of easy and common understanding, the sale by this petitioner of natural gas for resale, at the "city gate" Greeley, Colorado, to the Greeley Gas and Fuel Co. for instance, is a purely local sale, clearly subject to the rate regulatory jurisdiction of the State of Colorado, and obviously intended and declared by Congress to be withheld from the Commission. The Littleton "gate rate" *necessarily* evidenced the consummation of the sale, purchase and delivery of natural gas to petitioner after completion by Colorado-Interstate

Gas Company of its interstate transportation thereof. The Commission position is nothing less than shocking, and yet this Court by default has permitted that Commission position to prevail.

The Act expressly withholds *all* control over intrastate sales for resale, in addition to all "direct" sales. It is not to the point that Congress possibly might have conferred full power of rate control over the local Colorado sales for resale, as incidental to the major grant of authority—it did not do this. If the Colorado-Wyoming Company pipeline system did not cross the state line into Wyoming, the Colorado business would be beyond peradventure local. The Colorado business does not become national or interstate or constitute "the sale of natural gas across state lines," and subject to Commission rate regulatory control, merely *because* the Cheyenne "city-gate" contract of "sale for resale" made and consummated *in Wyoming* is subject to Commission rate regulatory jurisdiction. *Smith v. Illinois Bell Telephone Co.*, 282 U. S. 133, 51 Sup. Ct. 65, 70 *et seq.*

The substantial consequences of the error here involved are clearly shown by the record. In 1939, the test year adopted by the Commission, the total sales for resale were 1,706,000 Mcf, producing $579,000, of which sales for resale at the Cheyenne, Wyoming, "city-gate" were 494,000 Mcf, producing $182,000. Such Wyoming sales for resale were less than one-third of the total sales for resale both in quantities of gas sold and revenue derived therefrom. (R. Vol. III, Ex. 245; St. No. 4 and St. No. 8). By the Commission order of reduction in the rates of "sales for resale" (erroneous also in other respects), $58,000 was allocated to Wyoming "sales for resale" and $61,000 to Colorado "sales for resale" (R. Vol. I, p. 85).

The Duty of Judicial Review.

Before consideration of further specifications of this petition for rehearing it appears necessary to discuss the intended and declared scope of this statutory review, that is, to ascertain whether this review is merely *pro forma*, or partakes of the real quality of a judicial proceeding. To review or not to review is the question. The two views are repugnant and mutually exclusive, both in theory and in

practice. The adoption of either precludes any use of the other. And this fact cannot be dissolved by mere words. If this review in substance amounts merely to a validation of the Commission order, subject only to a vague and undefined right of protection against a newly restricted concept of "confiscation" measured only by sounding phrases, then Congress has deliberately withheld that which it purported to give. Such a conclusion cannot be indulged unless obviously and unmistakably intended and expressed. To this inquiry we now turn.

1. The Act specifically requires "a hearing," which under our system of government is a term of substance, and clearly imposes the burden of proof on the Commision itself (Op. Comm. R. Vol. I., p. 79), and apparently recognized by the Court (Op. Ct., p. 15).

2. The foundation of the Commission "rate making function" is largely factual as pointed out by the Supreme Court in the *"Hope Natural Gas Co. case"* (Secs. 6, 8, 9, 10 and 14).

3. Hearings, appropriate records thereof, and governing rules of procedure, contemplate a full and complete trial of all relevant issues of fact and law (Secs. 15 and 16).

4. The provision for rehearing before the Commission provides that such application "shall set forth *specifically* the ground or grounds upon which such application is based," not merely a general objection that the finding of "unreasonableness" is "arbitrary" (Sec. 19 (a)). Thus the Commission is given opportunity to correct its errors, on the assumed concept that "true wisdom always is discreet, and not ashamed of wise retreat."

5. The judicial review provided: (1) Is predicated solely upon the "transcript of the record" before the Commission; (2) "No objection to the order of the Commission shall be considered by the Court unless such objection shall have been urged before the Commission in the application for rehearing * * *," which means that all such objections so urged shall be considered by the reviewing Court; (3) "The finding of the Commission as to the *facts*, if supported by substantial evidence, shall be conclusive," or conversely, if not supported by "substantial evidence" cannot stand; (4)

a party, on proper showing, may be permitted by Court order "to adduce additional evidence" before the Commission; (5) in such event, "The Commission may modify its *findings as to the facts* • • • and it shall file with the Court *such modified or new findings*, which if supported by substantial evidence shall be conclusive *and its recommendation*, if any, for the modification or setting aside of the original order;" and (6) "The judgment and decree of the Court, affirming, modifying or setting aside, *in whole or in part*, any such order of the Commission, shall be final • • •" (Sec. 19). Herein in plain language is provided that usual and ample review of rate making orders of administrative agencies, developed and established by long legislative and judicial practice and the undoubted applicable law of the land at the time of the passage of the Natural Gas Act.

6. Moreover, Congress made clear beyond any doubt the limited and specific ambit of the Act. As declared by the Supreme Court in the *Hope Natural Gas Co.* decision, "The Committee Report stated that the *Act* provided 'for regulation along *recognized* and more or less standardized lines' and that there was *'nothing novel in its provisions'* H. Rep. No. 709, supra, p. 3. • • • "Sec. 4 (a) and Sec. 5 (a) contain only conventional standards of rate making for natural gas companies."

7. In view of the terms of the Act and the foregoing quotation from and paraphrase by the Supreme Court of the Congressional Committee Report, it cannot be held, that the duty of a statutory review can be discharged in this case by a mere process of rationalization and a blanket finding that the *ultimate conclusion* of "unreasonableness" (Comm. Order, R. Vol. 1, pp. 94-96) is not arbitrary in its "total effect." It is to be observed that the Commission after making some eleven findings of assumed fact (there are no findings with respect to several material issues) declares "*Therefore* the rates • • • received by Wyoming Company • • • are unjust, unreasonable and excessive." This conclusion ostensibly is *predicated* upon the opinion generally and the so-called findings and conclusions Nos. 1 to 11, inclusive, whether or not supported by the record, and *excludes* issues of material fact with respect to which there are no

real findings either in the order or the opinion of the Commission.

8. The language of the Supreme Court in the *Natural Gas Pipeline Company* and *Hope Natural Gas Company* cases, now relied upon by this Court (Op. Ct., pp. 17-18) does not require or authorize the conclusions announced by this Court. It is said by the Supreme Court, "If the Commission's order, *as applied to the facts before it* and viewed in its entirety, produces no arbitrary result our inquiry is at an end," and "The fact that the *method employed* to reach that result may contain infirmities is not then important." Unless there is to be attributed to the foregoing language the unnatural meaning, that errors of law upon substantial issues and findings and conclusions relating to material and important question of fact not supported by "substantial evidence," may be disregarded in arriving at the so-called "total effect" of the order, then the recognized, established, standardized and orderly judicial review heretofore accorded as of right must be given. This petitioner seeks to have the Commission order reviewed "*as applied to the facts*", and is not complaining about mere infirmity of method but about basically illegal and unlawful action. In short, and in conformity with the Act, *the findings* must *in fact* be supported by "substantial evidence," and the conclusions and order must be in harmony with controlling principles and rules of law. We do not believe the Supreme Court has undertaken to overrule the Congress, yet the generalized construction given to the language of that Court by this Court would indicate directly the contrary. The views of this Court preclude any real consideration of specific issues.

That each case must be decided by the Commission and reviewed by the Court on the facts therein involved, and that the Commission order must stand or fall "as applied to the facts before it," and under the applicable legal controls certainly is the teaching of the *Natural Gas Pipeline Co.* (Pet. Reply Br., p. 23) and *Hope Natural Gas Co. cases* and of all other decisions of that Court. The order, "in its entirety" or in "total effect," must be measured, therefore, by "*the facts*" before the Commission, that is, by the evidence in the record. The Commission may not lawfully

and within the limits of "due process" simply *choose* a rate base, *of any part of a rate base,* but must *from evidence* ascertain and determine (under whatever theory be adopted, be it "fair value," "original cost," or what-not) the true and real rate base in the instant case. In the *Hope Natural Gas Co.* case the Court did not find it necessary to inquire into any of the factual determinations of the Commission. The review was disposed of on questions of law. None of the issues of law or fact presented in this case in this petition for rehearing has been decided adversely to this petitioner in any decision of the Supreme Court.

9. Each of the issues of jurisdiction, "original cost," "accrued depreciation," "going concern," and "allocation" presented in this petition for rehearing involves amounts which are substantial to this small company, presently and from here on out, for each affects the rate base upon which hereafter petitioner is to be allowed a return. If one or more of such substantial issues was decided without evidentiary support or contrary to law, how can it be said the Commission order in "total effect" is not "arbitrary." The order "viewed in its entirety, produces no arbitrary result," *only* when no arbitrary result is present with respect to *any one* of the material and substantial issues of fact or law upon which the order is predicated. Fruit contaminated in part is not and cannot be perfect in its entirety, or even marketable. The whole cannot be greater than all its defective parts. We are told, a house "built upon the sand" is "without a foundation." Despite the fact "that house" may be imposing and attractive, and despite the fact certain of its constituent parts may be well built, yet it is not complete, it is not stable, it is not safe, and it is not acceptable. We are told also "that house" could not stand when put to the test. It "fell," not because of incidental defects or "mere infirmity of method," but as is declared by reason of the absence in fact of the requisite foundation. It was not recorded that this lack of foundation could be or was cured. It was not suggested that the walls, the floors, the ceilings, the roofs, the decorations, and the other what-nots, all having been well built, "the total effect" was a complete, safe, satisfactory and acceptable house "in its entirety." On the contrary, the record is "and it fell; and great was the fall of it."

Neither language nor formula can create essential facts or satisfy basic requirements. So the Supreme Court clearly did use the phrase, "as applied to the facts," advisedly. With facts then, must be laid that foundation, absolutely essential to support the Commission action in this case. This standard and measure, inherent in our very system of government, is a "Rock of Gibraltar" protecting all public and private rights and guarding all against the exercise of unrestrained "discretion" by those in authority. *Stark v. Wickard,* ..... U. S. ....., 64 Sup. Ct. 559, 571. This principle the Court has disregarded. The six line conclusion that the order is supported by the record (Op. Ct., p. 16) is a mere generalization, which we respectfully insist is not predicated upon or sustained by the record, as is evident with respect to several issues from the opinion itself.

True, "the Commission's order does not become suspect" *merely* "by reason of the fact that it is challenged." But, it cannot be purified or rendered valid "in its entirety" or at all by a process of sanctification. It is not sacrosanct. Congress has otherwise ordered and in so doing "has not used meaningless words." The term "arbitrary" is under established law a general expression or conclusion indicating that with respect to one or more specific and material issues the administrative order, measured by the record and controlling law, is not supported by substantial evidence or is contrary to law. Such is the unmistakable measure of review declared in the Natural Gas Act. If this Court be not concerned with particular issues as such, why is the statutory review provided at all, for relief from "confiscation" is still available through courts of equity. Why does the reviewing ambit of the Court include the broad power of "affirming, modifying or setting aside, in whole or in part" the Commission order! Why the repeated reference to "substantial evidence" and to the "findings as to the facts" found in Section 19 (b)! Why is the complete record including all the evidence required for this review! Why is the burden of proof imposed on the Commission if that burden is to be dispensed with directly or indirectly! Why is the review restricted to the specific points presented to the Commission on petition for rehearing before it! Why is the review commandingly directed to "the finding of the Commission *as to the facts*"! What kind of "a day in Court" is emerging from a statute which Congress and the

Supreme Court solemnly declare contains "nothing novel in its provisions!"

The Burden of Proof and the Presumption of Correctness on Review.

We have no controversy with the position of this Court that upon review the order of the Commission "carries with it a presumption of correctness and the burden rests upon him who attacks it on review for want of substantial evidence to *show the absence of such evidence.*" (Op. Ct., p. 16). But the "presumption of correctness" is and remains a presumption, and it cannot supplant or excuse non-performance of any clear judicial duty.

> "That the concurrent findings of two lower courts are persuasive proof in support of their judgments is a rule of wisdom in judicial administration. In reaffirming its importance we mean to pay more than lip service. *But the rule does not relieve us of the task of examining the foundation for findings in a particular case.*" (Emphasis ours.)
>
> *Baumgartner v. United States* (June 12, 1944) ..... U. S. ..... 64 Sup. Ct. 1240.

This Court also recognizes that "in the absence of substantial evidence" the action of the Commission is "the arbitrary exercise of power by administrative fiat and cannot stand" (Op. Ct., p. 15) The burden resting on this petitioner on review "to show the absence of such evidence," in the record, this petitioner meets.

What "evidence" then is it that the petitioner must "show the absence of"? Admittedly the evidence in this record is voluminous, but it is respectfully submitted that this Court has committed grievous error in holding that the ultimate conclusion of unreasonableness "is supported by substantial evidence." All the evidence in this record relates only to specific fact determinations, none to unreasonableness as such A finding of unreasonableness, when justified, is merely the conclusion drawn from *all* determinations of material fact under the applicable rules of law.

The Supreme Court, speaking through *Mr. Justice Frankfurter*, declared in its opinion, in the case above referred to:

"The phrase 'finding of fact' may be a summary characterization of complicated factors of varying significance for judgment. Such a 'finding of fact' may be the ultimate judgment on a mass of details involving not merely an assessment of the trustworthiness of witnesses but other appropriate inferences that may be drawn from the living testimony which elude print. The conclusiveness of a 'finding of fact' depends on the nature of the materials on which the finding is based. The finding even of a so-called 'subsidiary fact' may be a more or less difficult process varying according to the simplicity or subtlety of the type of 'fact' in controversy. *Finding so-called ultimate 'facts' more clearly implies the application of standards of law. And so the 'finding of fact' even if made by two courts may go beyond the determination that should not be set aside here. Though labeled 'finding of fact' it may involve the very basis on which judgment of fallible evidence is to be made.* Thus, the conclusion that may appropriately be drawn from the whole mass of evidence is not always the ascertainment of the kind of 'fact' that precludes consideration by this Court. See, e. g., *Beyer v. LeFevre,* 186 U. S. 114. * * * *Deference properly due to the findings of a lower court does not preclude the review here of such judgments.* This *recognized* scope of appellate review is usually differentiated for review of *ordinary questions* of fact by being called review of a question of law, but that is often *not an illuminating* test and is never self-executing. Suffice it to say that emphasis on the importance of 'clear, unequivocal, and convincing' proof, see *Schneiderman v. United States, supra,* at 125, on which to rest the cancellation of a certificate of naturalization would be lost if the ascertainment by the lower courts whether that exacting standard of proof had been satisfied on the whole record were to be deemed a 'fact' of the same order as all other 'facts,' not open to review here." (Emphasis ours.)

Baumgartner v. United States, supra.

See: *Security Flour Mills Co. v. Comm. Int. Rev.,* ..... U. S. ....., 64 Sup. Ct. 596, 598.

It is not the law that a rate making authority may, by making a finding that certain rates are unreasonable, preclude judicial review of the evidentiary and legal foundations of such finding. If, as we believe, the record abund-

antly discloses, the Commission proceeded without supporting evidence and without warrant of law, no conclusion which the Commission reached upon such improper basis can convert that wrong into right. The review, therefore, as stated by the Supreme Court, must be "applied to the facts" and to the legal controls, not to the ultimate conclusion. This then is the "evidence" that the petitioner must "show the absence of."

It is only after the several specific determinations of material issues of fact have been found to be supported by "substantial evidence" and in conformity with controlling law that the Court reaches the realm of "total effect" or "entirety." Such review of the basic facts and consideration of the governing law, as are disclosed by the opinion to have been made by the Court, do not meet this fundamental test.

While, of course, an administrative order will not be set aside for *mere* error in method or reasoning, yet if the proceeding is permeated with and pervaded by insufficiency of evidence or mistakes of law so that "the end result" so-called is controlled or affected thereby, the order cannot stand. This is the substance of the fully and long established process of judicial review recognized in and provided by the Natural Gas Act, which contains "nothing novel in its provisions." Failure or refusal of the proper reviewing court to conform to this principle of American jurisprudence amounts to nothing less than the abdication of the mandatory judicial function imposed upon it, by law. The Court is not free to cast aside that duty at will.

See: *Addison v Holly Hill Fruit Products, Inc.*, ... U. S. ....., 64 Sup. Ct. 1215, 1223.

The Commission Determination of "Original Cost" is Not the True or Entire Original Cost.

The Commission, *among other things,* eliminated all elements of engineering design and construction from its so-called "original cost" without either consideration or finding with respect thereto (Op. Comm. Vol. I, pp. 52-53, 59; Pet. Main Br., pp. 8-9, 166-171; Reply Br., pp. 27-34). The Court, however, notices and then brushes aside petitioner's objections without regard to relevant facts and controlling law (Op. Ct., p. 20).

The burden admittedly was on the Commission to establish *by evidence* that the rates of petitioner were unreasonable. In arriving at such final conclusion it was necessary for the Commission to ascertain and fix a rate base. This it undertook to do, so it is said, through evidence of "original cost" only.

In passing, it again is pointed out the assertion by the Commission that the difference, sought to be explained by it, between "original cost claimed by the Wyoming Company" * * "and that allowed herein" is only $42,236.00 (Op. Comm. R. Vol. I, p. 59), is not true (Pet. Main Br., pp. 36, 184). The difference is $129,600.00, which would produce an annual return of $7,500.00, a substantial amount to this small company.

The Commission result, after deducting an amount labelled accrued depreciation and certain deductions of alleged customer contributions, and adding working capital and plant additions, was described by the Commission as prudent investment, and adopted by it as the rate base. In this rate base (aside from other eliminations from actual and book costs—Pet. Main Br., pp. 166-184; Reply Br., pp. 27-34) there was included no amount whatever in any form for engineering design and construction. The evidence to this effect is clear and uncontroverted; in fact it was unwillingly given on cross-examination by the Commission witness who prepared and presented the Commission evidence of "original cost" (R. Vol. I, pp. 203, 287-288). It is a fact of common knowledge, of which we assume this Court must take judicial notice, that a natural gas pipe line system does not and cannot spring into existence without engineering design and construction. So here we have an original cost estimate which did not include and which it was deliberately intended should not include, these necessary elements of cost in any amount. These elements of cost were eliminated in their entirety because the service contract under which such essential services were furnished was with an affiliate (Op. Ct., p. 20). The elimination of the contract charge for such services, does not discharge the basic duty still resting upon the Commission to ascertain the entire original cost of the plant of petitioner including these necessary items of cost, whether shown on the books or not, and without which the system could not have been built. To state

"There was no showing satisfactory to the Commission that any engineering services were rendered," is to "ignore realities." *Again we say, the system could not have been built without such engineering services.* Further, the books of the company showed the contract and the payments made thereunder. The presumption is that company expenditures are made honestly and in the exercise of reasonable judgment and that the books of the company are correct (upon which presumption the Commission several times has relied in this record), in the absence of evidence to the contrary (Pet. Main Br., pp. 141-144). Also, there is specific evidence that services were rendered under the contract in question by two qualified engineers (R. Vol. I, pp. 201-202). The Commission does assert authority under Section 6 (a) of the Act to ascertain and determine when necessary in rate cases facts not shown by the records of the company, such as here, the reasonable cost or value of the essential design and construction engineering. *(In the Matter of Chicago District Elect. Generating Corp.*, 39 P. U. R. (N. S.) 263).

It seems, too, as stated by the Supreme Court, "Its rate making function, moreover, involves the making of 'pragmatic adjustments'," that is, practical adjustments of values or consequences to produce equitable results, as indicated by the facts and circumstances of each case.

It is to be observed that all payments upon the service contract with its affiliate, for engineering design and construction aggregating in excess of $83,000.00, were made many years before the passage of the Natural Gas Act, and all but about $5,000.00 thereof (Comm. Ex. 199, p. 7, Tr. Rec.) before the decision (December, 1930) in *Smith v. Illinois Bell Telephone Company,* cited and relied upon by the Court to support the Commission action in "adjusting" all engineering design and construction *out* of its "original cost." That decision is not authority for the denial of engineering design and construction costs. It relates solely and alone to the affiliate contract price therefor. The reasonable cost or value of these essential elements, however determined, remains a part of plant cost or value. In considering the propriety of and the equity requiring "pragmatic adjustments" the Supreme Court in *Los Angeles Gas and Electric Corp. v. Railroad Comm.*, 289 U. S. 287, 307,

53 Sup. Ct. 637, 644, declared, "The time and circumstances of the outlay, and the effect of altered conditions, demand consideration." The meaning of this is that common fairness must be accorded, in the light of the conditions existing when the payments were made. The necessity for such "pragmatic adjustment" is evident for the reason that the so-called original cost rate base adopted and now approved excludes all engineering design and construction and therefore manifestly is incomplete and unfair.

The denial of a reasonable amount, usually fixed by courts and commissions at 5%, the amount stipulated in the service contract in this case, to cover this necessary element of plant cost, plainly is unjust and operates to deny to this petitioner any return thereon, *for all future years* beginning with the effective date of the Commission order (Pet. Main Br., pp. 166-171, Reply Br., pp. 28-30). This result is a substantial deprivation of property, "reached arbitrarily and capriciously." *(See, Penn. Power and Light Co. v. Fed. Power Comm.* (C. C. A. 3), 139 F. (2d) 445, 449.)

In disallowing all charges for essential engineering design and construction, the Commission, and the Court as well, on the face of the record acted arbitrarily and as a matter of law committed error. Such violation of the accepted principles of ordinary fairness cannot be condoned or explained away by mere language or by resort to the protecting aegis of asserted non-confiscatory "total effect."

The Commission Fixation of "Service Life."

The Court in its treatment of "depreciation" (Op. Ct. pp. 26-27) reiterates the words, the assertions, and the contentions of the Commission. However, it fails to accord even passing reference to the basic fact of "service life." The commission, so-called determination thereof is without supporting evidence, as is shown by petitioner to this Court in detail (Pet. Main Br., pp. 42-57, 96, 184-198, Reply Br., pp. 34-39).

The one issue presented here and now, is that the "service life" adopted by the Commission is not supported by evidence. Service life is a fact and can be ascertained only *by evidence*. In the "absence of such evidence" that sub-

stantial and important fact is not established. *The record in this case "shows the absence of such evidence."* It is immaterial, therefore, what type of evidence or method of proof this Court may consider appropriate (Op. Ct. p. 27). There is nothing of probative value in this record as to service life under any theory.

It is not here material or in issue whether "the Commission adopted the service life *principle* for determining annual and accrued depreciation * * *," or that this Court approves that principle. Before that principle can operate it must have a foundation upon which to function. It is essential that the Commission under its burden of proof establish as a fact the service life of the property and system of this petitioner. *As to this both Commission and Court are silent.*

The Commission staff witness who prepared and presented the one-page summary conclusions of "Composite Service Life" (Comm. Ex. 200, R. Vol. III) was offered as an "expert." The testimony of this witness, the sole Commission witness on the subject, was "expert opinion" so-called. This witness testified precisely as stated by the Court in condemning the testimony of a witness for the petitioner on the subject of "going concern value" (Op. Ct., p. 23) "* * * that he did not employ any mathematical formula in arriving at his conclusion as to amount, and he admitted that it was only a judgment figure." The law, however, does not condemn "expert opinion" testimony (Pet. Main Br., pp. 144-147). But under all the authorities the probative value, *if any,* of the ventured "judgment" depends upon the foundations for the conclusions offered, as disclosed by the record. The affirmative disclosures of this record are compelling. The Commission witness in question admitted time after time on cross-examination that his conclusions were nothing more or less than speculative guesses or conjectures (R. Vol. I, pp. 468-503). The Court is respectfully asked again to examine our analysis and consideration of this evidence in our briefs heretofore filed, for the unsupported and therefore illegal determination by one so-called "expert," substantially injures this petitioner.

The conclusion of the Court that "there is no basis in this record on which it can be concluded that the determin-

ation of depreciation adopted by the Commission will result in any of these orders in its entirety causing a failure to restore the capital investment at the end of the term, and therefore no depreciation of property is involved" (Op. Ct., p. 27), is founded in neither fact nor law. As a factual matter the wholly unsupported, arbitrary and grossly inaccurate conclusions of the so-called "expert" are upheld. Such procedure serves to dispense entirely with any review whatever of "the finding of the facts," from which any such conclusion must stem.

If Commission and Court, ignoring the statutory requirements of "substantial evidence" and the burden of proof can thus "conclude," what occasion can there be for any factual evidence whatever on the question. The actual result is that the reviewing Court, declaring itself to be impotent, is powerless to correct any error, no matter how gross. If the Court, as here *without evidence* lawfully can seal the record and declare by way of finality that "in its entirety" the order does not involve deprivation of property, then all review is "gone with the wind." In such fashion the entire question of "service life," from which by mere mathematical computation the so-called "accrued depreciation" of the Commission results, is eliminated from consideration and from this case. The effect, of course, is that the review becomes purely perfunctory and a mere idle gesture. Having banished "the facts before it" and divorced them utterly from the "total effect," so-called, contrary to the mandate of Congress and the quoted declaration of the Supreme Court, there remains nothing to review, for other errors of law similarly are cast "into the outer darkness." And so the right of review expressly granted by the Act (Sec. 19 (b)) is repealed by emasculation, Congress not participating.

"Going Concern."

The discussion by the Court of this subject (Op. Ct., pp. 22-23) is merely an enlargement and along the same vein, as the summary disposition of "going value" by the Commission (Op. Comm. R. Vol. I, p. 68), except that the Court, as of necessity under the law, recognizes and states that "it is an element for appropriate inclusion in the rate base."

The Court in affirming the Commission action disallows it on two grounds, to-wit: (1) "The record fails to *indicate affirmatively* whether the element was *indirectly reflected* to any extent in other items and in the *appraisal* of other properties as part of the assembled whole." But in any event, there is no basis on which to rest the conclusion that the failure of the Commission to *state separately* and add an amount as going concern value overstepped the limits of due process," and (2) The expert witness of petitioner on this subject "stated that he did not employ any mathematical formula in arriving at his conclusion as to amount and he admitted that it was only a judgment figure" (emphasis ours). (Op. Ct., p. 23.)

These conclusions of the Court we will now consider in their order of statement.

The record does "indicate affirmatively" that this "element" is not directly or "indirectly reflected" in any manner or at all in the Commission rate base. And there was no "appraisal of other properties as part of the assembled whole" (Op Ct., p. 23). The evidence so disclosing is uncontroverted and is found in the testimony of Commission witnesses *Vaught* and *Smith* on cross-examination. The witness *Vaught* specifically testified (R. Vol. I, pp. 203, 288, 297-298) that no item of any kind in any amount "covering designing and construction engineering" was included in the Commission evidence of plant and property (Comm. Ex. 199, R. Vol. III). This exhibit (No. 199) included and totaled *only* the book costs of *specific items of property* (the actual cost of some items of property were "adjusted," that is eliminated in whole or in part by the witness). The totals in this exhibit so prepared and received in evidence (Comm. Ex. 199, p. 37, Line 12, R. Vol. III) were adopted as the rate base by Commission witness *Smith* (Comm. Ex. 202. St. 137, p. 10, Line 1, R. Vol. III), and thereafter by the Commission in its order (with certain specific adjustments) as the "original cost" of petitioner's plant and property (Op. Comm. R. Vol. I, p. 59). It cannot be maintained *on this record* that the element of going concern is directly or indirectly reflected in any amount or at all in the Commission rate base. The uncontroverted evidence by the Commission itself is to the contrary. This error, therefore, so readily

liquidated by the Court on the ground that "the failure of the Commission to state separately" that element, did not overstep "the limits of due process," obviously is not liquidated or even disposed of. It is quite impossible "to state separately" the amount of an item or element which deliberately and expressly is excluded "in its totality" from the Commission rate base.

It is not essential to state it "separately," if it may be rationally concluded that going concern was given its proper weight in the overall appraisal. *Per contra* upon affirmative showing as here, that the element was not included in any manner the action of the Commission is purely arbitrary.

Just what weight the Court can attach to its second ground of disallowance of "going concern" is not at all clear. Opinion testimony of an expert is evidence, under the law. The qualifications of petitioner's witness are not and cannot be denied (R. Vol. II, pp. 601-602). This cannot be questioned. But it is said in condemnation that his testimony as to the *amount* of going value *(not the fact,* which the Court concedes) was not based on "mathematical formula" and was "only a judgment figure." True! Necessarily true! And supported by many decisions (Pet. Main Br., pp. 144-147, 203-210; Reply Br., pp. 40-44)! The probative value of such evidence, properly is the subject of inquiry and analysis, however. That the testimony of this witness of petitioner had probative value is not traversed by Commission or Court.

Paradoxically, however, and without inquiry or analysis thereof, the "opinion" testimony of the Commission witnesses on "Service Life", not based on "mathematical formula" and concededly "only a judgment figure," is adopted by the Court without comment, even though all probative value of that testimony is seriously controverted by this petitioner in reliance upon the uncontroverted record testimony of that Commission "expert" himself.

Going concern is a fact, a property right and a part of the property of the petitioner upon which it is entitled to make a fair return (Op. Ct., p. 23). If the amount thereof in dollars, as offered in evidence by the petitioner be ques-

tioned, the duty obviously rested on the Commission under its burden of proof and other well settled rules of orderly procedure, by evidence to controvert the evidence of petitioner. This the Commission failed to do, electing rather to condemn it as a matter of law, on the asserted authority of "this Commission and regulatory agencies in general" (Op. Comm. R. Vol. 1, p. 68), thus to re-make the law.

"Allocation of Cost of Service."

On this topic, also, the Court merely repeats and approves the assumptions and conclusions of the Commission (See Pet. Reply Br., pp. 53-61). It is obvious from the opinion (Op. Ct., pp. 24-26) that the Court made no analysis of "the facts before it" or of the existing principles of law presently requiring and controlling "allocation of property." And here, as elsewhere, the same formula denying review is resorted to, the Court concluding "it cannot be said 'the order' in its totality produces arbitrary results or oversteps the bounds of due process" (Op. Ct., p. 26).

The problem of allocation here involved is by no means a simple one, and "while the difficulty in making an exact apportionment of the *property* is apparent, and extreme nicety is not required, only reasonable measures being essential * * *, it is quite another matter to ignore the actual uses to which the property is put." *(Smith v. Illinois Bell Tel. Co.,* 282 U.S. 133, 150-151, 51 Sup. Ct. 65, 69.) The Court, apparently with approval, states the Commission conclusion "that it did not follow * * * that an allocation of physical property or portions thereof must be made before any excessive returns were determined" (Op. Ct., p. 24). *In fact* the Commission made no allocation whatever of the property of the petitioner or any part thereof either before or after so-called "excessive returns were determined." The Commission in that behalf declared, "All that can be accomplished by an allocation of physical properties can be attained by allocating costs (Note: This alibi is wholly without evidentiary support) *including the return*" (Op. Comm. R. Vol. I, p. 80), and proceeded accordingly. The Commission thus definitely distinguishes "allocation of physical properties" from "allocating costs" and rejecting the former, the law of the land, it sets up its own law of the

case. Such formula, it *asserts* by way of justification is "most practical and businesslike." These Commission statements are mere assertion. Nor are there any findings, merely hand waving conclusions (Op. Comm., pp. 82-83, R. Vol. 1). It cannot be determined by the Court or by anybody else, on this record "other than by sheer acceptance of the Commission conclusion, in the form of its statement of the result and the cryptic formulation" of result, what, if any, are the factual foundations therefor. See *Eastern-Central Assn. v. United States,* ..... U.S. ....., 64 Sup. Ct. 499, 507, and *Alabama Power Co. v. Fed. Power Comm.,* 136 F. (2d) 929. This issue is a matter of such consequence and complexity that no real function of review can be performed without the requisite foundation that has not been made. That the Commission so-called "allocation" does not have "the sanction of law" affirmatively appears, however, as we hereinafter show.

We start then with the admitted fact that there is no "allocation of property" in this case.

Yet this Court apparently overlooks or misconceives the distinction in fact and law between "allocation of property" and "allocation of costs" also described as "allocation of cost of service," for we find in the opinion the following: "The separation may be appropriately effected by estimating or appraising the value of *the property used in the regulated business and that used in the unregulated business. Smith v. Illinois Bell Telephone Company,* 282 U.S. 133" (Op. Ct., p. 25). (Emphasis ours.) Then it is said by the Court, "The separation or allocation may be effected by application of *any formula* which makes the principle a working one suitably adapted to the particular circumstances," citing *Columbus Gas & Fuel Co. v. Public Utilities Commission,* 292 U.S. 398. (Emphasis ours.) If by "any formula" the Court means the Commission lawfully may promulgate, and the Court is at liberty to approve, a formula which discards "allocation of property" and substitutes therefor "allocation of cost of service," the Court is not supported by the *Columbus Gas & Fuel Co. case,* cited by it, or by other controlling decisions.

In the cited case the Court speaking through Mr. Justice Cardoza emphatically held that allocation of property is es-

sential and that any formula omitting such allocation is arbitrary. We quote in full the opinion in that case on the subject of "Allocation":

"Upon the hearings before the commission, the city made the claim that, in the appraisal of the property of the Ohio Fuel Gas Company, the production property should be allocated between Columbus and other municipalities upon the basis of the sales, but that transmission property should be allocated upon the basis of mileage, multiplied by the peak demand at the place of distribution. In opposition, the appellant contended that allocation on the basis of mileage was impracticable, and so the commission unanimously held.

"The opinion of the Supreme Court of Ohio, though giving its approval to the principle of mileage allocation favored by the city, does not furnish us with any formula that would make the principle a working one when applied to the Ohio system. If such a formula can be discovered, it may reduce the price at the Columbus gateway by an amount as yet unknown. Enough for present purposes that it is not discovered yet.

"The formula proposed by the city, and, it seems, sanctioned by the court, would estimate the mileage by starting from a place described as the last point of major compression, and thence proceeding to the town or city where distribution is to be made. In its application to the Ohio system, such a measurement of mileage is unrelated to realities. In the first place, the compressor, wherever situated, is not the source of supply. Gas may have traveled hundreds of miles before the process of compression starts. Conceivably these inequalities might be corrected by the aid of some law of averages. There has been no endeavor to correct them here. In the second place, no one municipality is served by any one compressor unaided by another. The system of transmission maintained by the Ohio Company with its 38 compressors scattered through the state is organized as a unit, and mileage from any single point would be an arbitrary measure of the value of the property devoted to transmission without including in the reckoning the mileage embraced in the system as a whole.

"Nothing to the contrary was held in Wabash Valley Electric Co. v. Young, 287 U. S. 488, 53 S. Ct. 234, 77 L. Ed. 447, or in United Fuel Gas Co. v. Railroad Comm. of Kentucky (D. C.) 13 F. (2d) 510, 522. A municipality may be treated as the unit for determining the rates to be charged to its inhabitants. Wabash Valley Electric Co. v. Young, supra. This does not mean that allocation of values may be made by recourse to an arbitrary formula. *The value of the property devoted to transmission may be measured upon the basis of mileage multiplied by demand.* United Fuel Gas Co. v. Railroad Comm. of Kentucky, supra, where the experts are stated to have agreed upon the method of division. *This does not mean that a like basis will be approved when mileage contributing to the supply is omitted from the reckoning.*" (Emphasis ours.)

Columbus Gas & Fuel Co. v. Pub. Utilities Comm. 292 U. S. 398, 408-410; 54 Sup. Ct. 763, 768-769.

In the *Minnesota Rate Cases,* in which allocation of property was held essential, the Court also directly repudiated the Commission method of "allocating costs including the return "now approved by this Court. The case of *Simpson v. Shepard* has not been overruled. We quote from that opinion:

"*The value of the use, as measured by return, cannot be made the criterion when the return itself is in question.* If the return, as formerly allowed, be taken as the basis, then the validity of the state's reduction would have to be tested by the very rates *which the state denounced as exorbitant.* And, if the return as permitted under the new rates be taken, then the state's action itself reduces the amount of value upon which the fairness of the return is to be computed.

"*When rates are in controversy, it would seem to be necesary to find a basis for a division of the total value of the property independently of revenue,* and this must be found in the use that is made of the property. That is, there should be assigned to each business that proportion of *the total value of the property* which will corres-

pond *to the extent of its employment in that business.* It is said that this is extremely difficult; in particular, because of the necessity for making a division between the passenger and freight business, and the obvious lack of correspondence between ton-miles and passenger-miles. It does not appear, however, that these are the only units available for such a division; and it would seem that, after assigning to the passenger and freight departments respectively, the property *exclusively* used in each, comparable use-units might be found which would afford the basis for a reasonable division with respect to property used in common." (Emphasis ours.)

Simpson v. Shepard, 230 U. S. 352; 33 Sup. Ct. 729, 764-765.

The necessity for *property* allocation likewise is explicit in the case of *Smith v. Illinois Bell Telephone Co., supra:*

"In view of the questions presented in this case, the validity of the order of the state commission can be suitably tested only by an *appropriate determination of the value of the property employed in the intrastate business* and of the compensation receivable for the intrastate service under the rates prescribed. Minnesota Rate Case, 230 U. S. 352, 435, 33 S. Ct. 729, 57 L. Ed. 1511, 48 L.R.A. (N. S.) 1151, Ann. Cas. 1916A, 18. *As to the value of that property*, and as to the revenue and expenses incident to that business, separately considered, there should be specific findings. Railroad Commission v. Maxey, 281 U. S. 82, 83, 50 S. Ct. 228, 74 L. Ed. 717." (Emphasis ours.)

Smith v. Illinois Bell Telephone Co., 282 U. S. 133, 149, 51 Sup. Ct. 65, 69.

It is clear, therefore, that "the requisite separation" may not be made by "an allocation of cost of service," even though it be asserted that "all that can be accomplished by an allocation of physical properties can be obtained" by the Commission made law of so-called "allocation of cost of service."

The underlying "factual" assumptions of the Commission are not relevant or related to this petitioner under any theory of allocation, and are not supported by but contrary

to the record. (Pet. Main Br., pp. 70-77, 212-237; Reply Br., pp. 53-61.) *The Commission allocation is not even premised on the property and operations of this petitioner* (Pet. Main Br. p. 223, Reply Br. 53-61). However, the factual aspect of this issue of allocation the Court disposes of, by indirection, but does not consider, resolve or meet, in its declaration: "* * * The method used by the Commission is said to be erroneous. * * * It may be conceded without deciding that the *method* is not free from defects or imperfections in all its aspects. But * * *" (Note: Then the Court again applied the deprivation of review formula, namely: "total effect.") (Op. Ct., pp. 25-26.)

The controlling legal requirement of "property allocation" is no mere method Nor is "the absence of substantial evidence" a mere defect or imperfection of method. These are fundamental and strip *this* Commission action of all basic validity and legality. It is perfectly obvious that "allocation" reaches the very heart of and controls directly the amount of the order of reduction herein involved. Whatever may be said, the stern fact cannot be dislodged that no order of reduction can stand even with the aid of the fiction of "total effect," if as here neither the basic foundation of facts nor warrant of law is present.

"Due Process."

Commission and Court alike brush aside also all other specifications of error, either without reference thereto or by mere discounting mention thereof (See, Pet. Main Br. pp. 255-270). Such Commission errors no less arbitrary but only less substantial in dollars than those specifically discussed in this petition for rehearing, are fully presented, both on the law and the facts, in our main and reply briefs. The uniformity of the treatment thus accorded all questions on review simply emphasizes the "totality" of the derogation and denial of all right of review as an actual and practical matter.

This case erroneously is treated as a mere incidental matter and scrambled into the Court's determinations of the Canadian River Gas Company and Colorado Interstate Gas Company cases. The issues in this case are separate

and distinct, in fact and in law, from the issues in those cases. As a result of the merging process indulged several material issues herein involved are confused or are completely by-passed in silence. This procedure of the Court operates to deny to this petitioner the fundamental right of due and orderly process. This criticism applies particularly to the issues of jurisdiction, "service life," allocation and due process.

The phrase "due process" is used time after time in the opinion of the Court, but always in connection with a "but," which is interjected as an obstacle to the application of that principle in this case.

"Due process" has been variously and repeatedly defined. In substance and spirit, however, it is the American way of life—the insistence upon fair play, embodied in our ordered and orderly institutions. It was founded in and controlled by principles. Its application was not abandoned to the whim or inclination of instrumentalities or agencies of public power whether created in the recent or distant past. To the courts were delegated the high honor and the solemn duty of protecting all citizens alike, through the application of this transcendently important and glorious concept of government. Congress has not abrogated or infringed upon this essential and salutory safeguard, and has so declared. The question does present itself, however, has any other agency of government attempted so to do! Specifically has the Commission or has the Court undertaken by its action, despite declarations to the contrary, to indulge, sanction or approve findings, conclusions, orders or judgments in this case, which are without warrant of law—and erroneous as a matter of law because not supported by "substantial evidence."

Since judgment is so dependent upon and reflects point of view, judgment uncontrolled by established and declared standards or measures becomes a menace to and destructive of orderly processes of government. Being uncontrolled it becomes fortuitous, that is to say, conditioned upon the viewpoint of that person or tribunal called upon by the accident of circumstance to judge. Congress clearly had this danger in contemplation when enacting the Natural

Gas Act, and particularly with respect to the rate regulatory authority in Sections 4 and 5 and the substantial right of review in Section 19 (b) thereof. The language of the Sections in question, as we have seen, clearly and unmistakably delegates no uncontrolled discretion either to the Commission or the Courts. The Committee Report submitting the Act and recommending its passage was specific that "nothing novel was contained in its provisions." All this can mean nothing other than that the *then* orderly processes of rate regulation and review thereof were intended by the Congress to continue to control both the Commission and the courts of review. Congress imposed the burden of proof upon the Commission, and manifested its intention in terms so clear that "he who runs can read" that "the finding of the facts" must be "supported by substantial evidence" and be in conformity with law if the Commission order is to stand. "The facts before it" and the law of the land measure the validity of the Commission action and the duty of the Court, *now* as before the passage of the Natural Gas Act. Irregularity and invalidity, legality and illegality, right and wrong, cannot be made to mean the same thing by any process of rationalization.

In the very nature of things each issue or question of fact must stand or fall when measured by the evidence, if any, in proof or disproof of that particular issue or question of fact. Moreover, under any theory of clear straight thinking one issue or question of fact cannot be offset against an entirely different and unrelated issue or question of fact. It is also elementary that the absence or insufficiency of evidence to support any particular issue or question of substantial and material fact cannot be condoned or validated by reason of the fact, if it be a fact, that another and independent issue or question of substantial and material fact is supported by "substantial evidence." The same conclusions relate as well to the determination of issues of law. The foregoing statements amount to truisms, but they are truisms which are utterly neglected and discarded by the Court's opinion in this case. "Total effect," unmeasured by material facts or controlling law, is not "due process," even in a "confiscation" case. The salutory principle that it is an error of law to render a decision

predicated upon findings not supported by "substantial evidence" is the law of this case, and binds this court. When facts and law are disregarded private rights (which as well as public rights are entitled to protection under that same law) inevitably are sacrificed under the mere forms of law. Thus the judicial review intended and provided by Congress, the law-maker, in response to Constitutional requirements, is thwarted "in its entirety."

Respectfully submitted,

DONALD C. MCCREERY,
LEE, SHAW and MCCREERY,
WM. A. BRYANS, III,
CHARLES J. KELLY,
Attorneys for Colorado-Wyoming Gas Company, Petitioner.

Order Denying Petition for Rehearing.

Forty-third Day, May Term, Wednesday, August 9th, A. D. 1944. Before Honorable Sam G. Bratton, Honorable Walter A. Huxman and Honorable Alfred P. Murrah, Circuit Judges.

This cause came on to be heard on the petition of petitioner for a rehearing herein and was submitted to the court.

On consideration whereof, it is now here ordered by the court that the said petition be and the same is hereby denied.

Stay Order.

Forty-fourth Day, May Term, Monday, August 14th, A. D. 1944. Before Honorable Orie L. Phillips, Circuit Judge.

This matter coming on for hearing this day on application of petitioner for a further continuance of the stay order and a further stay of issuance of the mandate, and it appearing that petition for rehearing filed in this cause on July 26, 1944, was denied on August 9, 1944,

It is now here ordered that the stay order entered herein on May 16, 1942 (and continued by further order of July 8, 1944), on the terms and conditions therein set forth, be and the same is hereby continued in full force and effect to and including October 15, 1944, and if within said period a petition for certiorari is filed in the Supreme Court of the United States and a certificate thereof is filed in this court within said period pursuant to rule 28 of this court, then said stay order shall continue in full force and effect until final disposition of said cause by the Supreme Court of the United States. It is further ordered that the issuance of the mandate is hereby stayed for the period up to and including October 15, 1944, and if within said period a petition for certiorari shall be filed in the Supreme Court of the United States, with due certificate as aforesaid, then issuance of the mandate shall be stayed until final disposition of the said cause by the Supreme Court of the United States.

Clerk's Certificate.

United States Circuit Court of Appeals, Tenth Circuit.

I, Robert B. Cartwright, Clerk of the United States Circuit Court of Appeals for the Tenth Circuit, do hereby certify the foregoing, consisting of three volumes, as a full, true, and complete copy of the designated transcript of the record from the Federal Power Commission, and full, true, and complete copies of certain pleadings, record entries and proceedings, including the opinion (except full captions, titles and endorsements omitted in pursuance of the rules of the Supreme Court of the United States) had and filed in the United States Circuit Court of Appeals for the Tenth Circuit in a certain cause in said United States Circuit Court of Appeals, No. 2561, wherein Colorado-Wyoming Gas Company, a corporation, was petitioner, and Federal Power Commission et al. were respondents, as full, true, and complete as the originals of the same remain on file and of record in my office.

In Testimony Whereof, I hereunto subscribe my name and affix the seal of the United States Circuit Court of Appeals for the Tenth Circuit, at my office in Denver, Colorado, this 25th day of August, A. D. 1944.

(Seal, U. S. Circuit Court of Appeals, Tenth Circuit.)

ROBERT B. CARTWRIGHT,
Clerk of the United States Circuit Court of Appeals, Tenth Circuit.

SUPREME COURT OF THE UNITED STATES

ORDER ALLOWING CERTIORARI—Filed November 13, 1944

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Tenth Circuit is granted, limited to the seventh question presented by the petition for the writ. The case is transferred to the summary docket and assigned for argument immediately following Nos. 379-380.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.